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ABSTRACT

The Cable TV Study Committee of the Common Council of Detroit, Michigan studied in depth the possibilities, requirements, and implications of cable television for Detroit. Their detailed recommendations are presented, covering financing and construction, the need for engineering and financial projections, organization for operation, channel allocation, access, revenue, regulation, additional services, and technical standards. (RH)

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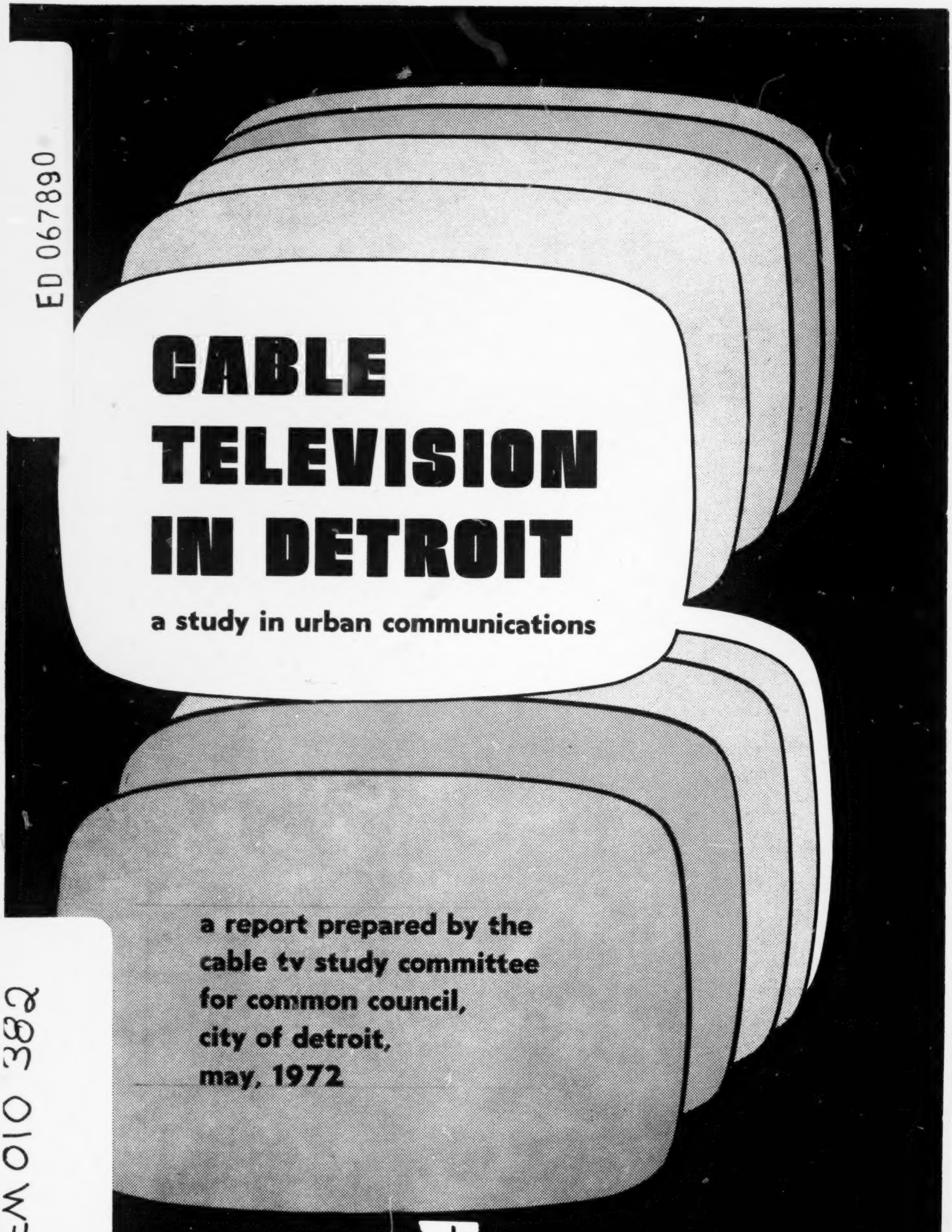

CABLE TELEVISION IN DETROIT

a study in urban communications

a report prepared by the
cable tv study committee
for common council,
city of detroit,
may, 1972

TM 010 382

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Cable T.V. Study Committee

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LETTER OF TRANSMITTAL

May 12, 1972

Dear Council Members:

When a little over a year ago we were asked by the Common Council to study and advise them on bringing Cable TV to Detroit, few of us either understood or appreciated what we were being asked to do. It has been an enriching experience as we became aware of both the promise and the problems that relate to Cable TV. The unforeseen complexities and the almost unbelievable potential has caused us to work harder and longer than any one of us dreamed.

The Committee began its work by becoming informed about the dimensions of cable. Over a series of meetings various consultants with different expertise were brought in to discuss the parameters of the problems. One of these sessions was video taped by channel 56 and televised to Detroit viewers over a two-week period. Then a series of public meetings was held. At these, citizens and representatives of any group who wished to appear were given opportunity to share with the Committee their viewpoints about Detroit developing a cable system. These meetings were held in several different geographic areas and at different times of the day to provide greater opportunity for persons to testify.

The Committee divided itself into three sub-committees, to explore and develop position papers and recommendations. From these a drafting sub-committee began to prepare drafts. Then the full Committee over a series of many and lengthy sessions hammered out the final recommendations. Once these were approved, a drafting sub-committee prepared the final draft of the Report. During this period the work was reviewed by outside consultants for their advice and comments. We now submit the final Report and recommendations to you.

Mailing Address
5229 Cass Avenue, Detroit, Michigan 48202
(Area Code 313) 577-2190 or 577-2210

In my experience, I have not seen a group of volunteers who has been more willing to give of themselves in time, thought, and effort. The Committee as a whole has met a total of 18 times, with many of these for extended sessions. The sub-committees met often in late spring and early summer. The drafting sub-committee's time must be measured in days rather than hours.

We know this Report is not the final word on Cable TV. Some of the decisions which must be made are beyond the purview of a lay committee. However, we are not merely proud of what we are submitting to you, we believe that our recommendations deal with fundamental questions the Common Council must consider if the public's interest is to be paramount in deciding about the coming of Cable TV to Detroit.

We strongly urge you to give this Report your most serious reading and discussion. We stand ready to help interpret it and assist the Common Council as it makes the important decisions it will be making about this crucial matter of urban communications.

We thank you for giving us the opportunity of becoming public servants for a while and hope our contribution to you merits the trust you placed in us.

Sincerely,

/s/ James W. Bristah, Chairman

ACKNOWLEDGEMENTS

The Committee wishes to express its appreciation for the support and assistance of a number of persons and institutions who have assisted in the Committee's work and the preparation of this Report.

The Committee wishes to acknowledge the assistance and support provided by Wayne State University, Center for Urban Studies, for its administrative and research support, the provision of meeting facilities at the McGregor Center and for making available staff, in particular Professor Hetzel, for extensive work in drafting recommendations and text for the Report. Similarly, the Committee is indebted to New Detroit, Inc. for its financial support in the form of a grant for the continuation of the Committee's work and to assist in publication of the Report as well as for making available one of its staff, Mr. Koch, to work over a considerable period of time in the drafting of recommendations and text for the Report. The Committee also wishes to express its appreciation to the United Methodist Church for providing additional funds to assist in the printing and dissemination of the Report.

The Committee is especially indebted to the many consultants who contributed their time and energy to meeting with the Committee and reviewing its work and to its Project Director, Mrs. Lois Pincus, for her considerable efforts and continued devotion to the work of the Committee.

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GLOSSARY OF TERMS

ACCESS: The ability to use a cable system. Applications of access in cable television refer to the following:

1. Programming access — the ability to transmit programming or offer services over the cable.
2. Viewer access — the ability to view what is transmitted over the cable.
3. Economic access — the ability to partici- in the revenues generated by the system.

ANTENNA: A device which receives over-the-air signals; in cable the antenna rather than on an individual's home is usually centrally located and quite high to collect over-the-air signals including micro-wave transmitted distant signals for retransmission on the cable system. (See TOWER or COMMUNITY ANTENNA.)

AMPLIFIER: A device which increases the strength of the signal. This is required because signals lose strength as they move through the cable. Amplifiers are generally placed every 1500 to 2000 feet along the cable.

AREA OPERATOR: An entity which might act as a SYSTEM OPERATOR for a specified geographical area.

AUDIO: The sound portion of a television signal, with "video" designating the picture of the total signal.

AUDIO RETURN: Capacity to return audio signal from individual user to central distribution points or to other users.

BROAD BAND: Capacity of coaxial cable to carry frequencies up to 300,000,000 cycles per second of communication (300 MHz) as opposed to narrow band, for example — telephone network which handles 3,500 cycles per second (3.5 MHz).

BROADCAST SPECTRUM: All waves of the electromagnetic spectrum having frequencies that can be received by radio and television equipment.

CABLE ANTENNA TELEVISION SYSTEM: This term or "community antenna television system" (CATV) means any facility which, in whole or in part, receives directly or indirectly over the air and amplifies or otherwise modifies the signals transmitting programs broadcast by one of more television stations and distributes such signals by wire or cable to subscribing members of the public who pay for such service.

CABLECASTING: Refers to programming distributed on a cable system which has been originated by the cable operator or by another entity, exclusive of broadcast signals, and carried on the system.

CABLE DISTRICT: A geographic segment of the city created for the purpose of establishing a community-level of programming control and origination. Each such district would be allocated a specific number of programming channels for program origination, with an administrative structure for supervising the community channels. (See CABLE DISTRICT ADMINISTRATION and COMMUNITY CABLE BOARD.)

CABLE DISTRICT ADMINISTRATION: Certain channels would be designated as "community channels" and would be operated by a citizen structure, with the city divided into geographical segments called "districts" for the purpose of program origination and control. Each such cable district would have an operational structure directed by a Cable District Administration, whose members would be elected from among the subscribers to the system within that district. The Cable District Administration would operate the community channels and facilities within that district. In turn, a number of the members of that CDA would be elected to the Community Cable Board, which would oversee operations of the city-wide aspects of the community channels.

CABLE SYSTEM: The physical facilities for transmitting electronic signals via cable, rather than through the air. Such signals are most commonly standard television picture signals, but may also include voice communications, digital and facsimile signals. The phrase "cable system" is used to describe the entire physical facility, including all program origination equipment (the "head end"), transmission equipment and individual hook-ups (called "drops").

CHANNEL: Except where otherwise specified, a segment of spectrum which is of sufficient megahertz in width to accommodate one video and one coordinated audio signal, each at the highest quality the state of the art can produce. There shall also be channels of sufficient width to carry similarly high quality data communications and other channels of sufficient width to carry similarly high quality voice communications.

CHANNEL CAPACITY: The number of video signals which can be transmitted simultaneously, e.g., the number of television channels.

COAXIAL CABLE: A coaxial cable consists of three elements: a copper wire, surrounded by an insulating layer of polyethylene foam, all of which is surrounded by a tubular shield of braided copper wire or a seamless aluminum sheath. This arrangement has special electronic characteristics that allow for the transmission of many electromagnetic signals with very high fidelity.

COMMERCIAL CHANNEL: A channel on the cable system which is used for the transmission of commercially sponsored or supported programming or which is leased out for a fee . . . as opposed to the over-the-air stations carried on the system and the non-commercial channels for educational, municipal, public and community use.

COMMON CARRIER: Traditionally, a manner of operation which functions on a first-come, first-served, non-discriminatory basis without control over content by system operator, as with: the U. S. Mails, the telephone system, railroads, etc. For cable television purposes, refers to "common carrier" access, that is a frame work by which persons desiring to transmit programs would be able to do so on a system of first-come, first-served, or by reserving specified time periods. The latter would properly be described as "limited common carrier status" in respect to operations of a city-wide cable television system.

COMMUNITY CABLE BOARD: All designated "community channels" will be operated and governed by an elected citizen body which is separate from the overall system operator. Each of the cable districts will have its own Cable District Administration (CDA) to supervise operations within that district. A specific number of the CDA members from each district will be elected to serve on the Community Cable Board (CCB), which will supervise those city-wide aspects of community channel programming and operation. The CCB would be created by act of the Common Council and would operate with complete autonomy from the system operator, in whatever form the latter exists.

COMMUNITY CHANNELS: Those channels which are dedicated to and controlled by a community structure (Community Cable Boards or Cable District Administration) created for purposes of original community programming.

CONVERTER: The device attached to the individual TV set, which selects the signal carried on the coaxial cable and converts it to a signal which can be transmitted through the TV tube.

DISTRIBUTION CABLE: Coaxial cable used to transmit the signals received from the head-end equipment. The transmission flow is: antenna to head-end to input to trunk cable to feeder cable to drop wire to inside wire to TV set.

DROP: (See HOUSEDROP)

DUAL CABLE: Two cables joined (and usually installed) together. This increases the channel capacity of the system.

EDUCATIONAL CHANNELS: All designated "educational channels" will be operated and governed by a structure developed by the participating educational installation and which is separate from the overall system operator.

ELECTROMAGNETIC SPECTRUM: All possible electromagnetic waves. Just like ocean waves described by the number of peaks and valleys that pass a given point.

ELECTROMAGNETIC WAVE: Signals or energy which travel through the air. Like an ocean wave traveling from Europe to America, electromagnetic waves travel from originating points to receiving points.

EMPTY CHANNEL: A channel which has been assigned by the FCC for television but is not actually in use.

FCC (FEDERAL COMMUNICATIONS COMMISSION). The governing body having regulatory responsibility over interstate and foreign communications by means of electrical energy, including radio, television and wire services.

FEEDER LINES (LINE EXTENDERS): Coaxial cables which branch off the trunk lines and run past the locations (residential units) of individual receivers.

FILTERING DEVICE: A device which "cleans up" the signal by filtering out outside interference.

The device can also be used, in the case of pay TV, to block out whole channels.

FM (FREQUENCY MODULATION): A method of modulation in which the frequency of the carrier wave is varied according to the signal transmitted. FM signals can be picked up "off-the-air" and transmitted, in the same manner as TV signals are received, on the cable. Some cable operators provide FM "background music" as an added feature.

FRANCHISE: A legal contract between a governmental unit and any entity granting authority to carry on a specified activity which requires use of public facilities or rights of way for its operation and under certain terms and conditions. In this instance, for the construction and operation of a cable facility in a specific political subdivision over public streets.

FREQUENCY: The number of peaks of a particular wave that pass a point in a second.

GROSS REVENUE: All revenue accruing to the system owner or operator directly or indirectly from or in connection with the operation of a cable system, including installation fees, subscription fees, advertising revenues and other commercial fees (from pay TV, data transmission).

HARDWARE: All the physical equipment that makes up a cable system (e.g., cables, amplifiers, switching devices, converters, cameras, lights, video tape machines, etc.).

HEADEND: An electronic control center where signals are received by an antenna or from a transmitter for distribution into the cable system. They may also be processed and amplified.

HIGH CAPACITY SYSTEM: System that can carry 24 or more channels.

HOUSEDROPS (DROPS: TAP-OFF): Smaller coaxial cables which branch off the feeder lines and connect the system to converters attached to individual receivers.

IMPORTATION OF DISTANT SIGNALS: Importing signals to a cable system that cannot be received over-the-air because the point of transmission is too far away. This is sometimes accomplished through microwave relays. The FCC controls the number of such signals allowed on a cable system.

LOCAL ORIGINATION: See CABLECASTING; PROGRAM ORIGINATION.

LOW CAPACITY SYSTEM: Method of transmitting signals from one point to another through the air. This can be used as a part of the cable network where laying of cable is not feasible. Today microwave relays can only work when there is no physical obstruction in the line of sight between two points.

MUNICIPAL CHANNELS: Those channels designated for use by various municipal institutions. They would be programmed by those institutions over facilities contributed by the cable system operator, with all operational control vested in an administrative structure representing the various municipal institutions.

NETWORK PROGRAMMING: The programming supplied by a national television network organization.

NETWORKING: The process of linking stations or cable systems for the purposes of programming origination and/or transmission. May refer to two or more stations or systems in a region, a state or the nation.

OFF-THE-AIR TRANSMISSIONS: Electromagnetic signals sent through a closed communication system; i.e., the telephone system or a cable system. Only those linked to the system can receive messages.

ORDINANCE: An authoritative decree, law, or direction set forth by local governmental body; a municipal regulation.

OVER-THE-AIR SIGNALS: Electronic signals transmitted through the air, from transmitter tower to home receiver or via microwave from point to point by broadcast stations.

PAY TELEVISION: The delivery over a cable system of signals which are intelligible only to those subscribers who pay an extra fee, in addition to the ordinary periodic fee for use of the cables, on a per program or per channel or other subscription basis. Non-subscribers to Pay Television may receive a scrambled signal on the channels assigned to Pay Television material.

POLE ATTACHMENT: Connection of cable to a utility pole.

POLE ATTACHMENT AGREEMENT: Contract authorizing connection of cable to utility poles.

PROGRAM ORIGINATION: Also called "cablecasting." All programming which originates on a cable system, as opposed to the re-transmission of either local or distant over-the-air station signals. May take the form of "live" program production or transmission of film or tape materials previously recorded.

PUBLIC ACCESS CHANNELS: Those channels designated for use by the public-at-large on a limited common carrier basis. There would be no content control of the public channels by the system operator. Public access channels could be utilized for such purposes as presentation by citizens wishing to express opinions or to provide such services as ombudsman, and/or legal or preventative health programming.

SCRAMBLED SIGNAL: A signal which is in all respects like all other signals on a cable system except that it is carried on the system in such a form that only users who have paid for the signal will be able to obtain it.

SIGNAL: An electromagnetic wave which carries information. It may be a television picture, sound or digital information.

SOFTWARE: That part of the cable system operation concerned with programming content that is not physical hardware, i.e., graphic materials, sets and backdrops, costumes, scripts, motion picture equipment, portable videotape equipment.

STATE OF THE ART: The most advanced technology commercially available.

SUBSCRIBER/USER: An individual or organization subscribing to the output of a cable television system.

SWITCHING DEVICE: A device which guides the signal through a particular cable or cables. When a number of paths are available, the device allows signals to be sent to a specific part of the system.

SYSTEM DESIGN: The overall characteristics — lines, capacity, switching — of a particular cable system.

SYSTEM OPERATOR: One who manages and operates the cable system but without control of programming or its contents on all but the commercial channels.

TOWER OR COMMUNITY ANTENNA: An antenna or cluster of antennae which receive signals over-the-air to be distributed throughout the cable TV system.

TUNER: A device attached to the converter which allows a TV set to be tuned to the signals sent through the cable system. More complex tuners are required for high channel capacity systems.

TRANSMITTER: A device that can send signals over-the-air or along cables.

TRUNK LINE: In a cable system those coaxial cables which run from the head end and form the major arteries of the system.

TWO-WAY OR DUPLEX SYSTEMS (TWO-WAY CAPACITY): A cable system in which messages can go not only from a central distribution point but possibly to other users.

USER/SUBSCRIBER: An individual or organization subscribing to the output of a cable television system.

VIDEO: The picture portion of a television signal, with "audio" designating the sound portion of the total signal.

VISUAL RETURN: Capacity to return picture signal from individual user to central distribution point or other users.

PREFACE

Cable television is a reality — there is no question that almost all American cities will have a cable system within the next ten years. It has become only a question of when cable will come and how it will be fashioned. The task which the Cable TV Study Committee undertook when it was asked by Common Council to "investigate all aspects and ramifications of cable tv" has not been an easy one. The subject is extremely complex and involves rapidly changing technology.

The Report, which we have entitled CABLE TELEVISION IN DETROIT; A STUDY IN URBAN COMMUNICATIONS, constitutes, we believe, an innovative and comprehensive approach for the use of cable television as a communications medium. It calls for a sophisticated system and a diversified structure with a high level of commitment to local origination, maximum access, and a wide range of municipal and educational services. The Committee feels it has presented to the Common Council guidelines for the development of this new technology which will best serve the public interest. The Committee is fully aware that implementation of its proposals is a departure from traditional concepts. This fact, as well as the necessity for additional technical information, has prompted us to request that there be a moratorium on the granting of any franchise for a year or until such times as the Committee's recommended engineering and financial projections can be completed.

The Committee recognizes that its recommendations, being innovative, are also controversial. It has adopted this position, however, because it believes that the most important issue is to provide a a public interest perspective to the potential communications benefits from cable. The Committee has done so despite knowledge that outside commercial and political interests may bring great pressures to bear on the Council, as has been the case in many cities. And finally, the Committee firmly believes that Detroit has a unique opportunity to take a national leadership role in the development of cable as the basis for a communications revolution — the full scope of which can only be imagined.

The task which now falls to the Common Council of the City of Detroit is even more difficult. Had the Committee proceeded along more traditional lines and recommended private ownership with minimum guarantees for public access through use of one of two such channels for the entire city, it would admittedly have been a simpler task. The Committee chose instead to put aside the traditional approach in favor of creating an experimental model which will maximize the communications potential of the medium. This Report is the result of those labors. The complex issues and the call for public control of the system will involve the Council in difficult decisions. It is the hope of the Committee that upon a full reading of the Report, the Council will make the fundamental determination that precipitous action on these basic issues may effectively deny the citizens of Detroit the full benefits of cable television and that a cable system in Detroit must provide the public services called for in the Report.

While the Report is the work of twenty-seven lay people, with minimum staff and budget, the Committee is confident that its product compares favorably with any on this subject produced to date, and will provide Common Council with the basic framework necessary for consideration of cable TV in Detroit.

CABLE TELEVISION IN DETROIT; A STUDY IN URBAN COMMUNICATIONS

SUMMARY*

The evolution of cable television from a method of improving off-the-air reception of television broadcast signals to an independently recognized broadband communications medium is underscored by a footnote to the FCC's recent decision promulgating rules for cable television service. There, the Commission took the trouble to note that it would no longer, as a general rule, refer to cable as Community Antenna Television or CATV "[b]ecause of the broader functions to be served by such facilities in the future."

Cable television, to be sure, has not abandoned the role that called it into being. Indeed, one of its chief attractions remains the ability to provide subscribers with a more complete, diverse selection of over-the-air television broadcast signals. And this selection is no longer limited by those signals capable of reception by an optimum antenna in the cable system's community. Rather, by microwave relay, cable systems can "import" over-the-air broadcast signals from anywhere in the country (or the world). Moreover, cable's ability to provide strong, clear signals in the subscriber's home has enhanced its broadcast signal retransmission role in this era of color programming.

Cable's commercial functions go well beyond carriage of over-the-air television broadcast signals. A cable system can also provide the subscriber with a great variety of local and distant AM and FM radio signals. The cable system can, itself, originate programming, either commercially sponsored or supported by subscriber revenues. Other channels may be leased to independent programmers on either a long term or short term basis, making possible a variety of specialized entertainment and even purely commercial fare. The non-broadcast commercial potential of cable is similarly vast. Cable can provide new networks for data transmission and access to data processing services. Facsimile reproduction of newspapers, magazines and documents is within the grasp of present technology.

But cable television is much more than greater diversity of entertainment and commercial programming and other commercial services. Rather, it is a medium offering a wide range of public telecommunication services urgently needed in urban areas. The public service and community involvement possible through the use of cable is the prime purpose for establishing a cable system in Detroit. Cable's channel capacity and low production cost make it ideal for communications within and between communities of interest. For example, community groups might program community news reports, courses in home management and child care, job training, discussions of community problems, and community bulletin boards. Arts and crafts and hobby programs are other possibilities. Cable can also offer public access: a "soap box" forum where individual citizens, including poltical candidates, can present their views on any subject. Such programming might also include city-wide dissemination of legal and and social service information.

Cable can also serve a variety of governmental needs, enabling agencies to collect, process and transfer information rapidly and efficiently among themselves and between government and citizen. Health care delivery, employment information and referral, traffic control, interagency communications and library services are only a few of the many possibilities.

The educational uses of cable are also numerous. Cablecasts of educational programming can greatly expand the reach of existing institutions. Resources such as course offerings and special speakers could be shared between institutions. In the area of adult education, for example, mini-campuses in branch libraries, storefronts, union halls and churches could be linked via cable to a central educational cablecasting facility. Or those who have left the educational process because of age, ill health, or lack of interest or success and who are reluctant to attend an educational facility, might be induced to attend classes in the privacy of their homes. In short, cable television can obviate many space, transportation and scheduling limitations of the present educational system.

Faced with the vast potential of cable television — both for commercial and public services — the task facing Detroit is ensuring these services for the citizens of Detroit. The task was made particularly difficult by several factors. First, the construction and start-up of a cable system in Detroit will require a large investment — anywhere from $30 to $120 million depending on the sophistication of the system. Second, the system will no doubt operate at a loss for the first few years due to the time required to achieve subscriber penetration and develop programming attractive to both subscribers and advertisers. The non-television commercial uses of the system will also be slow to develop. Third, in the Committee's judgment, any cable system for the City ought to provide public as well as commercial services at its inception; and the public services ought to be supported in large part by revenue from commercial operations.

From a consideration of the foregoing and related factors, the Committee adopted its major recommendation (and major qualification): That a cable television system for Detroit be publicly (rather than privately) owned; and that the Common Council defer any action until engineering and financial projections can be made to establish the practicability of such a system.

There are several bases for the choice of public ownership. First, a fully developed urban cable system can appropriately be viewed as a public utility. Second, construction of the system will entail a large investment and significant risk, particularly in the early years of development. These two factors suggest both the need for and appropriateness of public investment.

Third, if the system were to be privately developed, the Committee would anticipate significant competition between legitimate needs for profit and support for the system's public services. This need for profit and resultant reduction of public services would be eliminated with the system in public hands. Moreover, public financing offers the advantage of reduced debt service requirements because earnings on public bonds are tax exempt. These factors combine both to protect the system's public service components and to insure that the system is developed as rapidly as possible. And when the system has matured and is providing a balance of commercial and public services, public ownership will mean that the demand for profits will not compete for excess revenues which would be used for lower subscriber fees or technological improvements in the system.

The Committee's recommendation that a cable system for Detroit be publicly owned must be joined with a major qualification: The economic practicability of any form of ownership cannot be established without detailed engineering and financial projections beyond the Committee's resources. Thus, the Committee's second major recommendation is that Common Council declare a moratorium on all cable television decisions until it is able to secure the needed projections.

The recommended projections would cover all aspects of cable television in Detroit necessary to establish economic feasibility for any form of ownership. These would include: a market analysis to determine the revenue-raising potential of various commercial services; an engineering and cost analysis of a cable system installation, including an evaluation of competing technologies; and analysis of the cost of providing recommended public services and supporting those services in large part from commercial service revenues. Finally, the projections must address the feasibility of financing construction and start-up of the system.

The Committee has not formally recommended a private ownership alternative. However, recognizing that this alternative may be advocated by others to the Common Council, the Committee has recommended that engineering and financial projections be performed regardless of the ownership form selected. In short, the Committee has recommended a level of commercial and public services which it believes any cable system in Detroit should provide. And the Committee further believes that this level of service cannot responsibly be set unless the Common Council secures its own, independent projections of costs and revenues. Only then could the Council realistically bargain with a prospective franchisee over critical franchise terms which will predetermine communications services in the city for years to come.

Therefore, the Committee recommends that Common Council not proceed without the independent projections so necessary to an informed decision. To do otherwise could be disastrous for the interests of the City and the needs of its citizens.

The public ownership form recommended is a special public authority chartered by the City of Detroit. This recommendation, which would require enabling legislation similar to that for building and stadium authorities, no doubt reflects many of the advantages often cited for creating special purpose, quasi-governmental entities to perform entrepreneurial functions. For example, authorities can concentrate on a single function, while municipal governments have diverse responsibilities; authorities generally have no tax-levying power and are self-regulating to the extent that they must strike a balance between revenues and the costs of services and debt repayment; finally, authorities are somewhat independent of the political process and the governmental entity which charters them, thus making possible quicker, more businesslike, more impartial decisions.

Under the Committee's recommendations, the Common Council would adopt articles of incorporation defining the powers of the authority and the form of cable service to be provided. The authority would be governed by a nine-member board appointed by the Mayor and subject to confirmation by the Council. The Common Council would retain control over subscriber rates and would annually review system operations. Council would also reserve the power to amend the authority's charter so long as outstanding bond obligations were not thereby impaired. The authority, however, would adopt its own budget, decide its own priorities and its contracts would not be subject to Council approval.

The public authority model recommended by the Committee would give the authority the power to establish its internal structure so as to best provide the cable television services called for by this report. It is anticipated, however, that the structure adopted would provide significant opportunities for small business and minority entrepreneurs through contracts for regional or system-wide construction, maintenance and sales. Moreover, the authority would be required to make a number of channels available for commercial use on a lease basis. Thus, commercial access to a telecommunications medium would be made available to many who could not afford the substantial investment required to establish a broadcast station or even a cable system covering only a part of the City.

The Committee's recommendations on channel allocation recognize one very important aspect of cable: Ownership of the distribution system and control over programming do not have to be and should not be in the same body (entity). Indeed, the potential of cable for both commercial and public access cannot, in the Committee's judgment, be realized unless ownership of the distribution system is divorced, in part, from control over programming.

To make access possible, the Committee first recommends a minimum system capacity of 36 channels. This is more than the FCC's required minimum of 20 and less than the capacity of systems now being installed in some other cities (e.g., 42 in San Jose, California; 64 in Akron, Ohio). To make access a reality, the Committee has gone further and recommended **minimum** channel allocations for various commercial and public services. These allocations and related recommendations are as follows:

COMMERCIAL SERVICES

First, the program operator (a public authority under the Committee's recommendations) would be allocated eight (8) channels for carriage of existing or licensed over-the-air local broadcast signals. As a practical matter, this is an FCC requirement. Second, the operator would be allocated two (2) channels for importation of distant broadcast signals. In effect, the operator would be the programmer of these channels. That is, he would have the choice of distant signals, subject to FCC restrictions. These restrictions, it should be noted, would limit the operator to the two closest of the 25 largest television markets unless he chose to import signals from smaller markets. (The two closest of the top 25 are apparently Cleveland and Pittsburgh.) Third, the system operator would be allocated one additional channel for automated services, e.g., time and weather. Finally, the FCC will require that the operator set aside at least one channel for "local origination." This would be the operator's own channel to program in the purest sense of the word. That is, he could present any locally originated programming, sponsored or unsponsored. With respect to this channel, the operator would assume a role analogous to a local over-the-air broadcaster, except that he would be limited to locally originated programming.

To provide commercial access, the Committee recommends that the operator be required to allocate three (3) channels for commercial lease. The lessees of these channels could use their leased time for any form of programming, sponsored or unsponsored. Two of the channels would be unrestricted as to the term of lease. For example, a lessee might secure exclusive rights to program one of these channels for a year or even longer. In this instance, the lessee would function much as a licensee of a television broadcast station, but without the large investment required to establish an over-the-air station. The Committee recommends, however, that one of the three channels be made available for lease on a common carrier, first-come, first-served basis. This would provide access to the smallest of commercial users or advertisers. In this connection, the Committee recommends that steps be taken to preclude any users from monopolizing this channel.

PUBLIC SERVICE

To insure that the public service components do not become neglected step-children of the cable system, the Committee recommends a number of **minimum** channel allocations for public purposes. Most important among these, in the Committee's judgment, is an allocation of 10 channels for community use. This importance is underscored by the Committee's further recommendations that Common Council create, by ordinance, a community based structure to administer the programming of these channels.

The purpose of allocating channels for community use is to encourage community-originated programming reflecting the needs and interests of the community. To this end, the Committee recommends the creation of not less than five (5) Communty Cable Districts in the City. Two channels would be allocated to each of the five districts. One of these channels would be reserved for groups or organizations located within the district and programming would be the responsibility of a nine-member Cable District Administration elected by subscribers living in the district. Programming on the second channel would be the responsibility of a 15-member Community Cable Board made up of three members elected from each Cable District Administration. In general, access on this second channel would be limited to special interest groups not geographically defined. The Board would also have responsibility for problems concerning community channels generally.

In addition to the channels allocated for community-based programming, the Committee recommends that a minimum of two channels be allocated for public access. These channels would be the "soap box" forum, available to the public generally, without broad-based community direction. One of these two channels would be available on a non-reserved, common-carrier, first-come, first-served basis. The second channel would be available on a reserved common-carrier basis. The responsibility for administering use of these channels could be left with the system operator or assigned to an independent agency.

The Committee recommends that use of community and public access channels be free of charge. That is, the revenue-generating services of the cable system would be required to support community and public access programming. Here, the Committee departs from FCC requirements that only the first five minutes of live presentations be without charge. In this connection, the City could be required to petition for a waiver of the FCC's rules.

The Committee also recommends that channels be allocated for educational and governmental uses. Three (3) channels would be assigned for municipal uses and seven (7) for educational. The Committee recommends no specific structure for administering the use of these channels. Rather, the municipal channels might be administered by an existing or newly-created agency within City government reporting to the Mayor; or the function might be contracted out. The educational programming might be the responsibility of a council or consortium of educational institutions representing all levels or might be divided between agencies representing higher and elementary-secondary education. The division of these seven channels between the three levels of educational institutions would similarly be left to the administering agency. Consistent with the FCC's requirements, the use of these channels would be without charge.

The Committee's allocation of channels for public services exceeds that imposed by the FCC (one [1] for community and public access; one [1] for governmental use; and one [1] for educational use). However, the Committee believes that its allocations are necessary if cable is to achieve its public service as well as commercial potential. Thus, an FCC waiver should be sought to allow the City to impose these additional channel allocation requirements. Since the Committee could have recommended that the City be divided into separate franchise areas which would have resulted in about this many community channels, the fact that a centralized system is recommended should not reduce the number of community channels.

Three other recommendations of the Committee should be noted. The Committee has recommended that Common Council consider Pay TV and non-television uses of the system apart from its initial grant of authority to establish a cable system. This is particularly important because the potential of profits for these uses is so great and the financial impact on subscribers so significant. Moreover, the terms of service and subscriber rates could be materially influenced by the revenue-generating capacity of these non-television uses.

The Committee has also made extensive recommendations relating to employment and economic development. Cable can mean a major new industry for the City — one that cannot move to the suburbs. The Committee therefore urges that Common Council fully consider the economic and employment opportunities which will flow from a grant of authority to operate a cable system and take all necessary steps to insure that these benefits accrue to those who will ultimately support the system — the citizens of Detroit.

Finally, cable's potential for two-way transmission presents a danger of invasion of subscribers' rights to privacy. Thus, the Committee recommends that the City seek legislation to grant subscribers a right of action for invasion of their privacy involving the cable system and to make such invasions a criminal offense. Additionally, it is recommended that the system be designed to prevent return transmission from the subscriber's home or business terminal without a subscriber's express permission and that design and operational safeguards be incorporated to prevent third parties from invading a subscriber's privacy by tapping into the system.

Whatever the ownership mode ultimately selected by the Common Council, the Committee's recommendations define the basic requirements for a cable system which it believes best matches the potential of cable with the communications needs of the citizens of Detroit. These requirements should not be compromised — rather, they should be elements of any system authorized.

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*Separate views expressed by Committee members are to be found in full Report.

RECOMMENDATIONS

A NEW TELECOMMUNICATIONS MEDIUM FOR DETROIT

CABLE TELEVISION GIVES THE COMMON COUNCIL THE UNIQUE OPPORTUNITY, WITH FORETHOUGHT AND PLANNING, TO PROVIDE THE CITIZENS OF DETROIT, PEOPLE, BUSINESS AND INDUSTRY, A WIDER AND BETTER MEANS OF COMMUNICATION IN ITS BROADEST FORM, ALLOWING ACCESS TO TELECOMMUNICATIONS TO MANY INDIVIDUALS, ORGANIZATIONS AND INSTITUTIONS PREVIOUSLY DENIED ALL BUT TOKEN ACCESS.

I. NEED FOR ENGINEERING AND FINANCIAL PROJECTIONS

1. THAT THE CITY DECLARE A MORATORIUM ON ALL CABLE TELEVISION DECISIONS FOR THE PURPOSE OF SECURING ITS OWN FINANCIAL AND ENGINEERING PROJECTIONS: SUCH ENGINEERING AND FINANCIAL PROJECTIONS SHOULD DETERMINE IN GREATER DEPTH THOSE QUESTIONS BEYOND THE CAPACITY OF THIS LAY COMMITTEE INCLUDING, BUT NOT LIMITED TO:
   - (a) FEASIBILITY OF PUBLIC FINANCING VIA GENERAL OBLIGATION BONDS AND/OR REVENUE BONDS.
   - (b) SOFTWARE OR PROGAMMING COSTS REQUIRED INITIALLY IN ORDER TO PROVIDE THE FULL RANGE OF SERVICES RECOMMENDED BY REPORT.
   - (c) MARKET ANALYSES TO DETERMINE TIME-FRAME FOR SUBSCRIBER PENETRATION.
   - (d) POTENTIAL REVENUES FROM PAY T.V. AND NON-TELEVISION USES OF SYSTEMS, E.G., DATA TRANSMISSION, FACSIMILE REPRODUCTION, ALARM SYSTEMS.
   - (e) BENEFITS, INCLUDING COST SAVINGS, TO MUNICIPALITY THROUGH APPLICATION OF CABLE TO MUNICIPAL SERVICES SUCH AS POLICE AND FIRE PROTECTION.
   - (f) EVALUATION OF COMPETING CABLE TECHNOLOGIES (E.G., DIAL VERSUS CONVENTIONAL SYSTEMS) AND COMPLEXITIES OF INSTALLATION.
   - (g) THE POSSIBILITY OF PARTIALLY SUPORTING PROGRAMMING COSTS FOR THE NON-COMMERCIAL T.V. ASPECTS OF THE CABLE SYSTEM THROUGH THE ALLOCATION OF FUNDS FROM GROSS REVENUES OR FROM REVENUES FROM ADVERTISING.
   - (h) THE DEMAND, COST AND BENEFITS FROM COMMUNITY, PUBLIC ACCESS, MUNICIPAL AND EDUCATIONAL INVOLVEMENTS AND USES.
2. THAT SUCH ENGINEERING AND FINANCIAL PROJECTIONS BE PERFORMED NOT ONLY TO DETERMINE THE VIABILITY OF PUBLIC FINANCING AND OPERATIONS, BUT IN ORDER TO RESPONSIBLY DETERMINE WHETHER AN ACCEPTABLE LEVEL OF SERVICES (AS RECOMMENDED IN THIS REPORT) CAN BE PROVIDED UNDER ALTERNATIVE MODES OF OWNERSHIP.

II. FINANCING AND CONSTRUCTION OF THE DISTRIBUTION SYSTEM

1. THAT THERE BE ONLY ONE ENTITY RESPONSIBLE FOR THE CONSTRUCTION OF THE CABLE SYSTEM IN DETROIT IN ORDER TO MAXIMIZE ECONOMIES OF SCALE AND INTER-CONNECTABILITY NECESSARY FOR AN ADVANCED AND SOPHISTICATED CABLE SYSTEM.

2. THAT THE CABLE SYSTEM BE CONSTRUCTED BY A SPECIAL PUBLIC AUTHORITY OR NON-PROFIT CORPORATION, USING TAX EXEMPT BONDING CAPACITY FOR FINANCING THE CAPITAL COST OF THE SYSTEM.

3. THAT CONSTRUCTION OF THE CABLE SYSTEM BE COMPLETED WITHIN FIVE YEARS FROM DATE OF GRANT OF AUTHORITY.

4. THAT CONSTRUCTION OF THE CABLE SYSTEM BE PERFORMED IN SUCH A WAY THAT ALL AREAS OF THE CITY WILL BE PROVIDED SERVICE EQUALLY, ON A PHASED CONSTRUCTION SCHEDULE, WITH NO AREA FAVORED OVER ANOTHER.

III. ORGANIZATION FOR OPERATION OF THE SYSTEM

1. THAT CITY-WIDE SYSTEM MANAGEMENT AND OPERATIONS, AND DECENTRALIZED CONTROL OF ACCESS AND PROGRAMMING, ARE NOT MUTUALLY EXCLUSIVE CONCEPTS IN STRUCTURING A CABLE TELEVISION SYSTEM. THEREFORE, CERTAIN SYSTEM FUNCTIONS MAY BE ESTABLISHED ON A CENTRALIZED BASIS WHILE OTHERS MAY BE ESTABLISHED ON A DECENTRALIZED BASIS.

CENTRALIZED FUNCTIONS

2. THAT A SPECIAL PUBLIC AUTHORITY, OR NON-PROFIT CORPORATION CREATED FOR CONSTRUCTION OF THE SYSTEM (SEE RECOMMENDATION 2 UNDER FINANCING AND CONSTRUCTION AND CHARTS A AND B), BE RESPONSIBLE FOR OPERATION AND MANAGEMENT OF THE CABLE SYSTEM: AND THAT THE DIRECTORS (NOT LESS THAN 9 MEMBERS) BE APPOINTED BY THE MAYOR WITH ADVICE AND CONSENT OF COMMON COUNCIL, AND THAT SUCH DIRECTORS SHALL BE RESIDENTS OF THE CITY OF DETROIT AND REFLECT THE MINORITY GROUP COMPOSITION OF THE POPULATION OF THE CITY OF DETROIT.

3. THAT ALL SYSTEM OPERATIONS, EXCEPT FOR PROGRAMMING, BE HANDLED ON A SYSTEM-WIDE BASIS: THAT THE CITY NOT BE DIVIDED UP INTO FRANCHISE AREAS.

4. THAT SYSTEM WIDE FUNCTIONS OTHER THAN PROGRAMMING, E.G., PROMOTION, MAINTENANCE, ADVERTISING, SALES, COLLECTION OF SUBSCRIBER FEES, SYSTEM MANAGEMENT, BE HANDLED BY A CENTRALIZED AUTHORITY, AND THAT ANY PERSONS EMPLOYED FOR THESE PURPOSES BE RESIDENTS OF DETROIT. (SEE EMPLOYMENT)

5. THAT THE SPECIAL PUBLIC AUTHORITY DETERMINE THE MOST APPROPRIATE MANAGEMENT STRUCTURE FOR ITS OPERATIONS. IT COULD PERFORM MANAGEMENT FUNCTIONS ITSELF OR CONTRACT OUT TO A MANAGEMENT CORPORATION.

6. THAT APPROPRIATE ORGANIZATIONS BE CREATED FOR ADMINISTRATION AND OPERATION OF (1) MUNICIPAL, (2) EDUCATIONAL AND (3) PUBLIC ACCESS CHANNELS.

DECENTRALIZED FUNCTIONS

7. THAT CONTROL OVER PROGRAMMING, AS CONTRASTED WITH CONSTRUCTION AND MAINTENANCE OF THE SYSTEM, BE DECENTRALIZED SO THAT THERE IS AUTONOMY OF PROGRAM DIRECTION AND OPERATION WITH RESPECT TO COMMUNITY, EDUCATION, MUNICIPAL, AND PUBLIC ACCESS CHANNELS.

8. THAT NOT LESS THAN FIVE CABLE DISTRICTS BE CREATED TO IMPLEMENT RECOMMENDATIONS RELATIVE TO COMMUNITY CABLE OPERATIONS: THAT IN FORMING CABLE DISTRICTS, CONSIDERATION BE GIVEN TO SUCH FACTORS AS POPULATION DENSITY, ETHNIC GROUPS, GEOGRAPHIC BOUNDARIES, SPECIAL INTEREST GROUPS AND LOCATION OF DECENTRALIZED PRODUCTION FACILITIES (ORIGINATION POINTS).

9. THAT FOR EACH CABLE DISTRICT THERE BE A **CABLE DISTRICT ADMINISTRATION** COMPOSED OF NINE MEMBERS ELECTED BY SUBSCRIBERS LIVING WITHIN THE DISTRICT; THE CABLE DISTRICT ADMINISTRATION SHALL HAVE RESPSONSIBILITY FOR DETERMINING CRITERIA FOR SELECTION OF GROUPS AND ORGANIZATIONS TO BE RESPONSIBLE FOR PROGRAMMING **ONE** OF THE TWO COMMUNITY CHANNELS IN EACH CABLE DISTRICT: THAT EACH CABLE DISTRICT ELECT THREE OF ITS NINE MEMBERS TO THE **COMMUNITY CABLE BOARD** WHOSE RESPONSIBILITIES WILL BE DIRECTION AND OPERATION OF PROGRAMMING FOR THE SECOND COMMUNITY CHANNEL IN EACH OF FIVE CABLE DISTRICTS. THE COMMUNITY CABLE BOARD WILL HAVE A TOTAL OF 15 MEMBERS. ONE OF THE TWO COMMUNITY CHANNELS IN EACH CABLE DISTRICT WILL BE PROGRAMMED BY THOSE GROUPS AND/OR ORGANIZATIONS RESIDING WITHIN THE GEOGRAPHICAL BOUNDARIES OF THE CABLE DISTRICT. A DESIGNATED PERCENTAGE OF TIME ON THE SECOND COMMUNITY CHANNEL WITHIN EACH CABLE DISTRICT SHALL BE ALLOCATED TO SPECIAL INTEREST GROUPS NOT GEOGRAPHICALLY DEFINED, E.G., ETHNIC, RELIGIOUS, VOCATIONAL AND LABOR GROUPS. THE COMMUNITY CABLE BOARD SHALL ESTABLISH A PROCEDURE FOR ALLOCATION, ON A COMMON CARRIER BASIS, OF TIME NOT PREVIOUSLY RESERVED ON COMMUNITY CHANNELS.

10 THAT THOSE WHO REPRESENT THE CABLE DISTRICT BE ELECTED ON A STAGGERED BASIS FOR THE FIRST TERM AND THEN ONE-THIRD BE ELECTED EVERY YEAR FOR TERMS OF 3 YEARS, BY SUBSCRIBERS OF THE CABLE SYSTEM.

11. THAT IN OPERATION OF COMMUNITY CHANNELS:
    (a) GRANTS OF TIME FOR PROGRAMMING BE GIVEN BY BOTH THE COMMUNITY CABLE BOARD AND CABLE DISTRICT ADMINISTRATION FOR A PERIOD OF NOT MORE THAN ONE YEAR, SUBJECT TO REVIEW FOR POSSIBLE RENEWAL AT THE END OF THAT PERIOD.
    (b) GRANTS OF TIME BE GIVEN FOR A REGULARLY SCHEDULED PERIOD OF TIME, E.G., ONE-HALF HOUR EVERY WEEK, SEVERAL HOURS EVERY DAY, OR ONE WHOLE DAY EACH WEEK. THE CABLE DISTRICT ADMINISTRATION AND COMMUNITY CABLE BOARD SHALL ASSURE FAIR AND EQUITABLE DISTRIBUTION OF PROGRAMMING RESPONSIBILITY FOR PRIME TIME VIEWING.
    (c) TIME NOT SCHEDULED A REASONABLE PERIOD BEFORE CABLECAST REVERTS TO COMMON CARRIER STATUS AND THAT SUCH AVAILABILITY BE PUBLICIZED VIA THE CABLE SYSTEM.
    (d) SHOULD A GRANTEE FAIL TO USE ALLOCATED PROGRAM TIME WITHIN PUBLISHED DEADLINES, HIS GRANT WOULD BE SUBJECT TO REVOCATION.

12. THAT THE COMMUNITY CABLE BOARD ALLOCATE PROGRAMMING FUNDS TO GRANTEES FOR LOCAL PROGRAMMING.

13. (a) THAT THE CABLE DISTRICT ADMINISTRATION AND COMMUNITY CABLE BOARD SHALL HAVE NO CONTROL OVER CONTENT OF PROGRAMS.
    (b) THAT THE COMMUNITY CABLE BOARD AND CABLE DISTRICT ADMINISTRATION BE REQUIRED TO PUBLICLY EXPLAIN THEIR RATIONALE FOR REJECTION OF A GIVEN GRANTEE IF THE GRANTEE SO REQUESTS.

14. THAT THE COMMUNITY CABLE BOARD AND THE CABLE DISTRICT ADMINISTRATION PROVIDE PROCEDURES FOR A REVIEW OF THEIR ADMINISTRATIVE DECISIONS AND CITIZEN COMPLAINTS.

IV. CHANNEL ALLOCATION

1. THAT THE CABLE SYSTEM HAVE A MINIMUM OF 36 CHANNELS AVAILABLE FOR IMMEDIATE AND INITIAL OPERATION: THAT ALLOCATION OF SUCH CHANNELS INCLUDE APPROPRIATE DIVISION BETWEEN EXISTING OVER-THE-AIR CHANNELS, DIS-

TANT SIGNALS, PUBLIC ACCESS, 10 COMMUNITY (DIVIDED BETWEEN CITY-WIDE AND CABLE DISTRICT), COMMERCIAL (ON A COMMON CARRIER BASIS), EDUCATIONAL (DIVIDED BETWEEN ELEMENTARY, SECONDARY AND HIGHER EDUCATIONAL INSTITUTIONS), MUNICIPAL, PROGRAM GUIDE, AND THE LIKE, WITH SUCH RESERVED CHANNELS AS MAY BE APPROPRIATE. THAT ALLOCATION OF CHANNELS BE DETERMINED AT THE TIME THE COMMON COUNCIL APPROVES INSTALLATION OF A CABLE SYSTEM IN DETROIT.

2. THAT A MINIMUM OF 10 OUT OF THE FIRST 36, AND APPROXIMATELY 15% OF ADDITIONAL CHANNELS, BE ALLOCATED FOR COMMUNITY OPERATION AND DIRECTION: EACH CABLE DISTRICT (ASSUMING FIVE) WOULD HAVE A MINIMUM OF TWO CHANNELS.
3. THAT A MINIMUM OF ONE PUBLIC ACCESS CHANNEL BE AVAILABLE ON A NON-RESERVED, COMMON CARRIER BASIS FOR NON-COMMERCIAL APPLICATION: REASONABLE LIMITS ON REPETITIVE USE BY INDIVIDUALS OR GROUPS SHOULD BE IMPOSED: THAT A MINIMUM OF ONE ADDITIONAL PUBLIC ACCESS CHANNEL BE AVAILABLE ON A RESERVED COMMON CARRIER BASIS.
4. THAT A MINIMUM OF THREE CHANNELS BE DESIGNATED FOR MUNICIPAL USE.
5. THAT A MINIMUM OF SEVEN CHANNELS BE DESIGNATED AS EDUCATIONAL CHANNELS: THAT 20% OF FUTURE CHANNEL ALLOCATION BE DESIGNATED AS EDUCATIONAL CHANNELS.
6. THAT A MINIMUM OF ONE CHANNEL BE AVAILABLE FOR COMMERCIAL APPLICATION ON A COMMON CARRIER BASIS: REASONABLE LIMITS ON REPETITIVE USE BY INDIVIDUALS OR GROUPS SHOULD BE IMPOSED: THAT TWO ADDITIONAL CHANNELS BE MADE AVAILABLE TO SYSTEM OPERATOR.
7. THAT ONE CHANNEL BE UTILIZED FOR PROVIDING A SYSTEM-WIDE PROGRAM GUIDE, AUTOMATED TIME, NEWS AND WEATHER.
8. THAT SYSTEM OPERATOR BE AUTHORIZED TO CARRY EXISTING OVER-THE-AIR F.M. BROADCAST STATIONS ON THE CABLE SYSTEM.
9. THAT COMMON CARRIER STATUS BE APPLIED TO ALL TIME NOT REASONABLY RESERVED IN ADVANCE ON COMMUNITY, PUBLIC ACCESS, MUNICIPAL, AND EDUCATIONAL CHANNELS.

V. ACCESS

PROGRAMMING ACCESS

1. THAT FUNDS BE ALLOCATED FROM GROSS REVENUES TO SUPPORT PROGRAMMING ON EDUCATIONAL, MUNICIPAL, COMMUNITY, AND PUBLIC ACCESS CHANNELS.
2. THAT THE OPERATOR OF THE CABLE SYSTEM BE REQUIRED TO PROVIDE AND MAINTAIN IN EACH CABLE DISTRICT, WITHOUT CHARGE, ADEQUATE FACILITIES AND EQUIPMENT IN PROPER OPERATING CONDITION (INCLUDING MOBILE EQUIPMENT) FOR PROGRAM PRODUCTION ON COMMUNITY CHANNELS.
3. THAT THE OPERATOR OF THE CABLE SYSTEM BE REQUIRED TO MAKE PRODUCTION FACILITIES AVAILABLE IN EACH CABLE DISTRICT, AT NO COST TO THOSE INDIVIDUALS AND GROUPS WHO WISH TO PRESENT THEIR OWN PROGRAMS ON PUBLIC ACCESS CHANNELS. THAT THESE FACILITIES BE MAINTAINED AND STAFFED BY THE SYSTEM OPERATOR AT NO COST.
4. THAT THE OPERATOR OF THE CABLE SYSTEM PROVIDE, WITHOUT CHARGE, LINKAGE (DROPS) FROM THE PRODUCTION FACILITIES OF EDUCATIONAL AND MUNICIPAL INSTITUTIONS TO THE TRANSMISSION FACILITIES OF THE CABLE SYSTEM.

VIEWER ACCESS

5. THAT SUBSCRIBERS IN ANY CABLE DISTRICT BE ABLE TO VIEW PROGRAMMING ON ALL CHANNELS WITHIN THE CITY'S CABLE SYSTEM EXCEPT FOR CERTAIN SPECIFIED PURPOSES AS MAY BE AUTHORIZED BY THE CABLE SYSTEM AUTHORITY. SUCH PURPOSES COULD INCLUDE TRAFFIC SURVEILLANCE, FIRE PROTECTION AND PROFESSIONAL, TECHNICAL AND COMMERCIAL CONFERENCES.
6. THAT ACCESS TO THE CABLE SYSTEM BE AVAILABLE TO EVERY PERSON IN THE CITY WISHING TO SUBSCRIBE, ON A NON-DISCRIMINATORY BASIS, AND WITHIN A REASONABLE AND SPECIFIED PERIOD OF TIME.
7. THAT THE CABLE SYSTEM AUTHORITY DEVELOP AN APPROPRIATE MECHANISM TO PERMIT ACCESS TO VIEWING FOR LOW-INCOME FAMILIES.
8. THAT THE OPERATOR OF THE CABLE SYSTEM PROVIDE, WITHOUT CHARGE, DROPS TO HOSPITALS, SCHOOLS (PUBLIC AND PRIVATE), PUBLIC HOUSING, PRISONS, JAILS, MENTAL INSTITUTIONS, REFORM SCHOOLS, POLICE AND FIRE STATIONS, AND SIMILAR PUBLIC AND PRIVATE INSTITUTIONS; THAT DROPS BE LOCATED AS PER SPECIFICATION BY SUCH INSTITUTIONS.

VI. REVENUE

REVENUE DISTRIBUTION

1. THAT PROGRAMMING COSTS FOR EDUCATIONAL, MUNICIPAL, COMMUNITY, PUBLIC ACCESS CHANNELS BE AT LEAST PARTIALLY SUPPORTED THROUGH ALLOCATION OF FUNDS FOR GROSS REVENUES BASED UPON A FORMULA TO BE DEVELOPED BY THE COUNCIL.
2. THAT CABLE REGULATORY ACTIVITIES BE SUPPORTED ENTIRELY BY THE CABLE SYSTEM THROUGH ALLOCATION OF A SUFFICIENT PORTION OF SYSTEM REVENUES.
3. THAT REVENUES REMAINING AFTER EXPENSES BE ALLOCATED BY THE SPECIAL PUBLIC AUTHORITY OR CABLE AUTHORITY TO A FUND FOR REDUCING SUBSCRIBER COSTS, IMPROVING SYSTEM CAPABILITY, SUPPORTING ADDITIONAL COMMUNITY, MUNICIPAL, EDUCATIONAL AND PUBLIC PROGRAMMING COSTS. THAT IF FURTHER REVENUES REMAIN, SUCH REVENUES SHALL BE GIVEN TO THE CITY AFTER SUFFICIENT RESERVES ARE ESTABLISHED FOR CAPITAL IMPROVEMENTS.

ADVERTISING

4. THAT IN ORDER TO INCREASE FINANCIAL SUPPORT FOR LOCAL PROGRAMMING, ADVERTISING BE PERMITTED ON COMMUNITY CHANNELS: THAT ADVERTISING BE DIVORCED FROM PROGRAM CONTENT AND PRODUCTION ON COMMUNITY CHANNELS.
5. THAT REVENUES FROM ALL ADVERTISING ON COMMUNITY CHANNELS GO TO SUPPORT PROGRAMMING COSTS FOR COMMUNITY CHANNELS: THESE REVENUES TO BE DEPOSITED WITH THE COMMUNITY CABLE BOARD FOR ALLOCATION ON A FAIR AND EQUITABLE BASIS. (THESE FUNDS WILL SUPPLEMENT ANY REVENUES FROM THE TOTAL SYSTEM WHICH ARE TO BE ALLOCATED TO COMMUNITY CHANNELS FOR PURPOSES OF FINANCING LOCAL PRODUCTION COSTS.)
6. THAT THE COMMUNITY CABLE BOARD ESTABLISH A SCHEDULE OF ADVERTISING RATES AS WELL AS A PROCEDURE FOR ALLOCATION OF ADVERTISING TIME ON COMMUNITY CHANNELS TO GUARANTEE MAXIMUM ACCESS TO SUCH TIME FOR BOTH SMALL AND LARGE ADVERTISERS.
7. THAT ADEQUATE FREE PUBLIC SERVICE TIME BE SET ASIDE FOR POLITICAL ISSUES AND CANDIDATES ON COMMUNITY AND PUBLIC ACCESS CHANNELS: NO PAID POLITICAL ADVERTISING SHALL BE PERMITTED ON THESE CHANNELS. THE USE OF COMMUNITY CHANNELS FOR SUCH PURPOSES SHALL BE LEFT TO THE DISCRETION OF CABLE DISTRICT ADMINISTRATIONS.

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VIII. REGULATION

1. THAT THE COMMON COUNCIL GRANT AUTHORITY FOR CONSTRUCTION, OPERATION AND PROGRAMMING OF THE CABLE SYSTEM, AND APPROVE SUBSCRIBER RATES.
2. THAT OVERALL REGULATORY RESPSONSIBILITY, EXCEPT FOR PROGRAMMING COMMUNITY, EDUCATIONAL, MUNICIPAL, AND PUBLIC ACCESS CHANNELS, BE DELEGATED TO THE SPECIAL PUBLIC AUTHORTITY. HOWEVER, IF THE OPERATING ENTITY IS NOT A SPECIAL PUBLIC AUTHORITY, THEN THE COMMON COUNCIL SHALL CREATE A CABLE AUTHORITY, OPERATING WITH REGULATORY RESPSONSIBILITY, MEMBERS OF WHICH SHOULD BE CHOSEN BY THE MAYOR WITH ADVICE AND CONSENT OF COMMON COUNCIL: ALL SUCH MEMBERS SHALL BE RESIDENTS OF THE CITY OF DETROIT AND REFLECT THE MINORITY GROUP COMPOSITION OF THE POPULATION OF THE CITY.
3. THAT COMMON COUNCIL SHOULD CREATE AN APPROPRIATE CONFLICT OF INTEREST ORDINANCE REGARDING THE CABLE SYSTEM.
4. THAT THE CABLE SYSTEM AUTHORITY WILL HOLD AN ANNUAL REVIEW OF SYSTEM OPERATIONS, ESTABLISH A SYSTEM FOR HEARING GRIEVANCES CONCERNING THE OPERATION OF THE SYSTEM AND RENDER AN ANNUAL REPORT TO COMMON COUNCIL.
5. THAT THE COMMON COUNCIL REQUEST STATE LEGISLATION TO ASSURE COMPATIBILITY AND INTERCONNECTION OF ALL SYSTEMS IN EXISTING REGIONAL PLANNING DISTRICTS.
6. THAT THE CITY TAKE THE LEADERSHIP IN DEVELOPING THE INTERCONNECTABILITY OF ITS SYSTEM WITH OTHERS IN THE REGION AND IN THE STATE.

VIII. ADDITIONAL SERVICES — FUTURE IMPLICATIONS

1. THAT GIVEN THE SERIOUS ECONOMIC IMPACT OF PAY T.V. ON CABLE SYSTEM SUBSCRIBERS, PAY T.V. NOT BE APPROVED AT THIS TIME: THAT SUCH DECISION AWAIT THE ENGINEERING AND FINANCIAL PROJECTIONS WHICH WILL SPECIFICALLY ADDRESS THE ISSUE AS TO WHETHER PAY T.V. IS NEEDED TO MAKE THE CABLE SYSTEM ECONOMICALLY VIABLE: THAT IF PAY T.V. IS REQUIRED FOR THIS PURPOSE, THEN SUCH USES OF THE SYSTEM SHOULD BE LIMITED TO THE MINIMUM NECESSARY TO INSURE FINANCIAL VIABILITY. SIPHONING OF PROGRAMMING WHICH WOULD OTHERWISE BE AVAILABLE TO ALL SUBSCRIBERS (PARTICULARLY LOW-INCOME) SHOULD BE MINIMIZED.
2. THAT NON-TELEVISION USES OF THE CABLE SYSTEM, E.G., DATA TRANSMISSION, FACSIMILE REPRODUCTION, SHALL BE CONSIDERED BY THE COMMON COUNCIL SEPARATELY FROM ITS CONSIDERATION OF THE GRANT OF AUTHORITY TO ESTABLISH THE CABLE SYSTEM.

IX. TECHNICAL STANDARDS

1. THAT THE CITY SET THE TECHNICAL STANDARDS FOR THE CABLE SYSTEM TO INSURE THE HIGHEST POSSIBLE QUALITY OF PERFORMANCE REGARDING THE PICTURE AND SOUND TO BE DELIVERED TO SUBSCRIBERS.
2. THAT THE INITIAL INSTALLATION OF EQUIPMENT PROVIDES THE GREATEST POTENTIAL FOR MAXIMUM NUMBER OF CHANNELS AND OFFER THE GREATEST FLEXIBILITY: AND THAT EQUIPMENT INITIALLY INSTALLED HAVE DUPLEX, I.E., TWO-WAY, CAPABILITY.
3. THAT ALL CONSTRUCTION RELATED TO CABLE INSTALLATION BE DONE IN A MANNER CONSISTENT WITH SOUND ECOLOGICAL AND AESTHETIC CONSIDERATIONS.

4. THAT EXISTING OVER-THE-AIR CHANNELS SHALL HAVE THE SAME CHANNEL NUMBER ON THE CABLE SYSTEM.

5. THAT THE SYSTEM OPERATOR BE REQUIRED TO CONSTANTLY UPGRADE TECHNICAL FACILITIES, EQUIPMENT AND SERVICES SO THAT THE SYSTEM IS AS ADVANCED AS THE CURRENT STATE OF TECHNOLOGY WILL ALLOW.

X. EMPLOYMENT

1. THAT ALL PERSONS EMPLOYED IN CONNECTION WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SYSTEM BE RESIDENTS OF THE CITY OF DETROIT, AND THAT THOSE PERSONS ENGAGED IN THE CONSTRUCTION, OPERATION OR MAINTENANCE OF THE SYSTEM PROPORTIONATELY REFLECT THE RACIAL AND MINORITY GROUP COMPOSITION OF THE POPULATION OF DETROIT. THAT THOSE CONNECTED WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SYSTEM BE REQUIRED TO FULFILL AFFIRMATIVELY THE EQUAL EMPLOYMENT PROVISIONS OF THE CITY, STATE AND FEDERAL LAW AND THAT THE WORK FORCE OF THE SYSTEM REFLECT THE RACIAL, SEXUAL AND ETHNIC GROUP COMPOSITION OF THE POPULATION OF DETROIT: THAT PERSONS NOT BE ARBITRARILY ELIMINATED FROM CONSIDERATION BECAUSE OF AGE.

2. THAT IN THE CARRYING OUT OF THE CONSTRUCTION, MAINTENANCE AND OPERATION OF THE CABLE SYSTEM, SYSTEM OPERATOR WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, CREED, COLOR, SEX OR NATIONAL ORIGIN. THE SYSTEM OPERATOR WILL TAKE AFFIRMATIVE ACTION TO INSURE THAT APPLICANTS ARE EMPLOYED, AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT, WITHOUT REGARD TO THEIR RACE, CREED, COLOR, SEX, OR NATIONAL ORIGIN. SUCH ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: EMPLOYMENT UPGRADING, DEMOTION OR TRANSFER, RECRUITMENT OR RECRUITMENT ADVERTISING, LAYOFF OR TERMINATION, RATES OF PAY OR OTHER FORMS OF COMPENSATION, AND SELECTION FOR TRAINING, INCLUDING APPRENTICESHIP. THE SYSTEM OPERATOR SHALL POST IN CONSPICUOUS PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES SETTING FORTH THE PROVISIONS OF THIS NON-DISCRIMINATION CLAUSE. THE SYSTEM OPERATOR SHALL, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYEES PLACED BY OR ON BEHALF OF THE SYSTEM OPERATOR STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATION FOR EMPLOYMENT WITHOUT REGARD TO RACE, CREED, COLOR, SEX, OR NATIONAL ORIGIN. THE SYSTEM OPERATOR WILL INCORPORATE THE FOREGOING REQUIREMENTS OF THIS PARAGRAPH IN ALL OF ITS CONTRACTS FOR WORK RELATIVE TO CONSTRUCTION, MAINTENANCE AND OPERATION OF THE CABLE SYSTEM AND WILL REQUIRE ALL OF ITS CONTRACTORS FOR SUCH WORK TO INCORPORATE SUCH REQUIREMENTS IN ALL SUBCONTRACTS FOR SUCH WORK.

3. IN ORDER TO HELP REDUCE THE LEVEL OF UNEMPLOYMENT AND UNDEREMPLOYMENT IN THE CITY, THE SYSTEM OPERATOR WILL, WITHIN THREE MONTHS AFTER GRANT OF AUTHORITY FOR SYSTEM INSTALLATION, PREPARE A GENERAL OUTLINE OF AN AFFIRMATIVE ACTION PLAN DESIGNED TO TRAIN AND PROVIDE EMPLOYMENT TO QUALIFIED UNEMPLOYED AND UNDEREMPLOYED RESIDENTS OF THE CITY AT EVERY OPERATIONAL LEVEL INVOLVED IN THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE CABLE SYSTEM. THE GENERAL OUTLINE SHALL BE DRAWN UP AFTER CONSULTATION WITH ADMINISTRATORS OF THE PRINCIPAL MANPOWER PROGRAMS OF CITY AND STATE AGENCIES, AS WELL AS WITH THE SYSTEM OPERTOR'S PRINCIPAL CONTRACTORS AND SUBCONTRACTORS, AND REPRESENTATIVES OF APPROPRIATE UNION ORGANIZATIONS.

THE GENERAL OUTLINE OF THE AFFIRMATIVE ACTION PLAN SHALL BE SUBJECT TO THE APPROVAL OF THE COMMON COUNCIL AND, WITHIN THREE MONTHS AFTER SUCH APPROVAL, THE SYSTEM OPERATOR SHALL PREPARE A FINAL AND DETAILED PLAN WHICH SHALL ALSO BE SUBMITTED TO THE COMMON COUNCIL FOR ITS APPROVAL. ANNUALLY, THE SYSTEM OPERATOR SHALL FILE REPORTS WITH THE COUNCIL SETTING FORTH ITS ACTIVITIES UNDER THE AFFIRMATIVE ACTION PLAN AND STATING IN DETAIL ANY FAILURES TO COMPLY WITH THE PROVISIONS OF THE PLAN. THE PROVISIONS OF THE PLAN, AS APPROVED BY THE COMMON COUNCIL, WILL CONSTITUTE MATERIAL TERMS AND CONDITIONS OF ANY GRANT OF AUTHORITY TO OPERATE THE CABLE SYSTEM.

(a) THAT A SEMI-ANNUAL EMPLOYMENT CENSUS APPROPRIATE TO THE FOREGOING RECOMMENDATION SHALL BE PROVIDED TO THE MEMBERS OF THE COMMON COUNCIL SO THAT IT CAN BE DETERMINED WHETHER THEIR STANDARDS ARE BEING COMPLIED WITH.

(b) THE COMMON COUNCIL SHALL PROVIDE BY ORDINANCE FOR ENFORCEMENT OF THE REQUIREMENTS OF THE FOREGOING RECOMMENDATIONS AND PENALTIES FOR THE VIOLATION THEREOF.

4. THAT IMMEDIATELY UPON THE INITIATION OF WORK FOR INSTALLATION OF THE CABLE SYSTEM, A TRAINING PROGRAM FOR THE DEVELOPMENT OF CAREER OPPORTUNITIES FOR ALL EMPLOYEES OF THE SYSTEM OPERATOR BE ESTABLISHED BY THE SYSTEM OPERATOR. IN ADDITION, THE SYSTEM OPERATOR SHALL DEVELOP A TRAINING PROGRAM FOR THOSE PERSONS NOT EMPLOYED BY THE SYSTEM OPERATOR BUT WHO ARE INVOLVED IN PRODUCTION AND PROGRAMMING OF COMMUNITY, EDUCATIONAL, MUNICIPAL, AND PUBLIC ACCESS CHANNELS.

XI. PRIVACY

1. THAT CABLE SYSTEM SUBSCRIBERS BE GRANTED, BY LAW, A RIGHT OF ACTION FOR INVASIONS OF THEIR PRIVACY INVOLVING THE CABLE SYSTEM; AND THAT SUCH INVASIONS OF PRIVACY ALSO BE MADE A CRIMINAL OFFENSE WITH VIOLATORS SUBJECT TO FINE AND/OR IMPRISONMENT.

2. THAT THE CABLE SYSTEM BE DESIGNED TO PREVENT ANY DUPLEX RETURNS WITHOUT A SUBSCRIBER'S SPECIFIC PERMISSION: THAT THE SYSTEM DESIGN AND OPERATION INCORPORATE SAFEGUARDS TO PREVENT THIRD PARTIES FROM TAPPING INTO THE SYSTEM AND THEREBY INVADING A SUBSCRIBER'S PRIVACY.

3. THAT MONITORING OF A CABLE SYSTEM SUBSCRIBER'S VIEWING HABITS WITHOUT HIS EXPRESS PERMISSION BE PRECLUDED, IF POSSIBLE, BY SYSTEM DESIGN AND PROHIBITED BY LAW. SUCH PROHIBITIONS SHALL NOT PREVENT CUMULATIVE VIEWING ANALYSES AND RESEARCH SAMPLING.

INTRODUCTION

1. GENERAL RECOMMENDATION — A NEW TELECOMMUNICATIONS MEDIUM FOR DETROIT

RECOMMENDATION:

CABLE TELEVISION GIVES THE COMMON COUNCIL THE UNIQUE OPPORTUNITY, WITH FORETHOUGHT AND PLANNING, TO PROVIDE THE CITIZENS OF DETROIT, PEOPLE, BUSINESS AND INDUSTRY, A WIDER AND BETTER MEANS OF COMMUNICATIONS IN ITS BROADEST FORM, ALLOWING ACCESS TO TELECOMMUNICATIONS TO MANY INDIVIDUALS, ORGANIZATIONS AND INSTITUTIONS PREVIOUSLY DENIED ALL BUT TOKEN ACCESS.

Cable television is too important to Detroit, and its impact on the daily lives of Detroit citizens will be too dramatic and pervasive, for cable system operators to be regarded as anything less than gatekeepers to the mind.

If the Common Council were to relinquish this gatekeeping function without full investigation of ownership alternatives, it would be defaulting on responsibilities to the City of Detroit and to the future generations of Detroit residents. This is especially true since the system operator will charge a toll, or monthly fee for access to the system. Further, ten to twenty years or more into the future, cable television in Detroit will probably generate an income of millions of dollars annually. If the City of Detroit is to fully reap the potential social and economic benefits of a cable television system, the system must, from its inception, be directed towards meeting the public needs of our City.

Accordingly, the Cable TV Study Committee strongly recommends that there be no cable television in Detroit until and unless a system is devised that will protect the public interest in this new telecommunications medium and guarantee that public needs will be met. The matter is too vital to be left to promises and good intentions. Those who control cable systems will, in the future, control the flow of information, entertainment, news, social and commercial services to the public. As Marshall McLuhan warns: "Once we have surrendered our senses and nervous systems to the private manipulations of those who would try to benefit from taking a lease on our eyes and ears, we don't really have any rights left."

If the insistence upon guarantees of public protection delays the advent of cable television in Detroit, the delay must be endured. The guarantees are essential, and they must be incorporated into a master plan **before** any system is allowed to begin. To do otherwise is to repeat the errors of the past: the errors of first allowing trees to be felled without restrictions, then wondering why Michigan has no forest; the errors of first condemning buildings, then worrying about relocating the people in them; the errors of first building freeways, then dealing with the exodus of the more mobile families from the city.

Detroit is one of the first major metropolitan areas to make a study of the promise and the problems of cable television before granting any cable franchise. It is one of the first to formulate a vision of what cable systems can and should do for the city before that vision is limited by what a cable system has already done. The decision in Detroit, says Ralph Lee Smith, author of "The Wired Nation" and a national cable expert, will be important as a pattern for cable development in the rest of the country. Unless city councils plan wisely, Smith says, "Citizens of some cities are going to be miserably shortchanged." Cable systems, he added, stand "At a junction between the old," privately oriented, "and the new," publicly oriented, "and if they [the Common Council] franchise the old it will be a major disaster."

The importance of the decision facing the Council is underscored by the words of Henry W. Maier, Mayor of Milwaukee who vetoed a proposed cable franchise in that city because of the number of unanswered questions in the applicant's proposal. He said: "In the absence of any national or state regulatory agency willing or able to protect the public interest, we certainly owe it to ourselves, our children, and our children's children to try to act in our own interest and the interest of the future."* Cable television, Maier said, "if its full potential is realized [will] revolutionize our society, and a city without a full communications system will find its quality of life second class."

To illustrate what can happen when adequate consideration does not take place, the experience of one large metropolitan area may be useful. There, two franchises were granted before the appointment of a task force on the future of telecommunications in the city. Even after the task force's recommendations came in, the city felt constrained by steps previously taken: it wanted to take competitive bids for the franchises, but decided it could not, in view of the $30 million already invested by the two franchises; it wanted to limit the franchises to ten years, but decided it should not, since the franchisees claimed a twenty-year term was necessary to justify their large capital investments.[1]

It is equally important to guarantee that the recommendations of the city's master plan are adhered to — in a number of small cities the recipients of cable franchises have left the citizens with inferior equipment, faulty service and broken promises of meeting public needs because the cities failed to protect against this possibility.

There is time yet to assure that the development of cable television will best serve the City of Detroit. The cable industry is not yet totally controlled by a concentration of national power that has made substantive change in over-the-air broadcasting so difficult.

The validity of cable television for Detroit — lies not in its potential for a profitable private business — but in this City's need to overcome discrimination in access to communications. Compared to other areas of the country, television reception in Detroit is fairly good and the choice of channels fairly extensive; the need for cable television on these grounds alone is marginal. But Detroit does need cable television if its cable system will, as it is capable of doing: (1) facilitate community involvement and heighten community consciousness; (2) aid in the delivery of municipal and social services; (3) enlarge educational facilities by extending them to individual homes; (4) improve the quality and quantity of reception of regular television programming; (5) provide differential, localized programming; (6) help order and deliver commercial services; and (7) become, ultimately, the basis for a new communications system of the 21st century.

It could be easy in considering implementation of cable systems to wonder whether there is need for considerable deliberation and discussion. After all, cities like Jackson and Lansing, Michigan already have cable systems and there have been no grand sweeping changes in the social, cultural, political or educational textures in these communities. The changes, though, are in the future, especially if the publicly oriented system here recommended is adopted. It must be remembered that the first users of the telephone at the Philadelphia Exposition may well have doubted the need for such an invention; surely they did not imagine the possibility of worldwide interconnections and telephone calls to the moon. All indications are that cable television will be a similar communications marvel, with much of its applications and possibilities not yet foreseeable.

One of the fundamental challenges of our modern technological society is whether the fruits of man's inventive genius will be utilized to enrich the life of all persons or to benefit a select few. Related to this is the question of humanization. Will the marvels of technology be used in such a way that persons feel further dehumanized and alienated, or will they be used in ways by which all persons believe and feel that they are accepted as human beings and that the society really cares and wants them to be full participants in our urbanized community? This is the basic question that confronts the Common Council when it makes its decision as to when and how cable television will be introduced into Detroit. Here is another example of modern man's technological genius. How will it be used? Will it be used to build a community in which all persons have a voice, or will it benefit only those who already can be heard? Will it be developed in ways that further alienate persons and groups or will it be developed in ways by which all person can have their dignity enhanced because they have access to be heard? As a new communication system will it help to humanize the City, or will it further depersonalize the people of the community?

The Cable TV Study Committee, early in its deliberations concluded that the primary purpose for the Common Council to consider as it ap-

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*See Appendix, Mayor Maier's letter.

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[1] Sucherman, Stuart P., "Cable TV. **The Endangered Revolution,**" Columbia Journalism Review, May/June 1971, p. 18.

proaches decisions about introducing cable television to Detroit is that this could become a new system of communication for all the citizens of Detroit to use and have access to in new and creative ways. Our concern is the public and citizen interest, and we believe this should be paramount.

Cable television can become a system of communication which gives new opportunity for all persons to be heard and participate in the life of the city, especially those who, up to now, have not had adequate access to any current communication system.

2. WHAT IS CABLE TELEVISION? HOW DOES IT WORK?

Cable television is a system by which set owners receive their television signals by coaxial cable rather than through the air. It was developed in 1949 to capture the television signals that were blocked by the hills of Oregon and eastern Pennsylvania.

Cable systems were developing simultaneously and independently in Oregon and the hills of eastern Pennsylvania, most often at the instigation of an enterprising television dealer. In the beginning, cable systems were called Community Antenna Television (hence the acronym, CATV), an apt description, for what was involved was the establishment of one central antenna to serve a community that otherwise would have no or little television reception. The principle is the same as a master antenna in the high-rise apartment building.

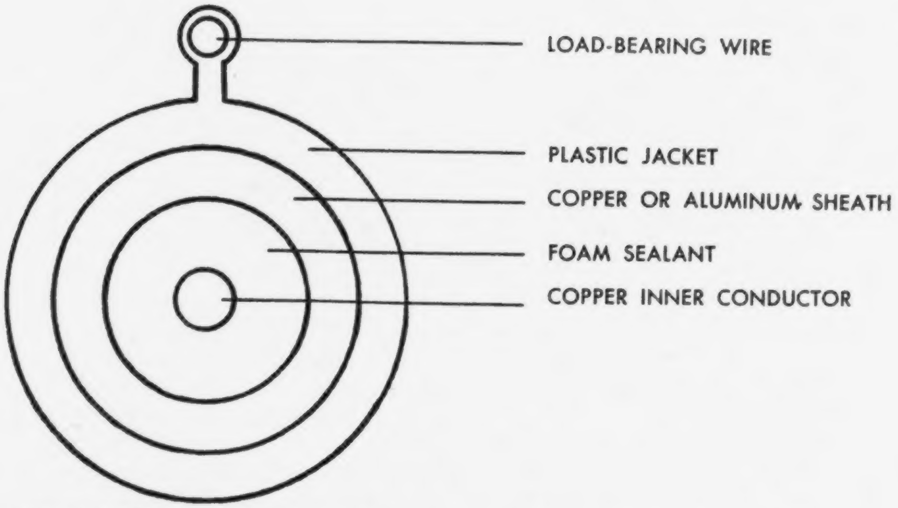
The technologigy of 1949 is basically that used today: A receiving antenna, or a set of antennas, one for each station to be received, is placed on a high point where reception of television signals is best. The signals are sent from there to a "headend," a master control station, a building that houses signal processing and other equipment. Here the signals are filtered, amplified if necessary, and sometimes changed in frequency. From there the signals are sent over a coaxial cable, through the main trunk lines (with a diameter of about ¾ inch) that go along the major distribution routes; through the smaller feeder lines (less than ½ inch in diameter) which service groups of buildings; and through the even smaller droplines (about ¼ inch in diameter), which run into the subscriber's home and connect to the back of the television set. The cables commonly share telephone or electric power poles, or lie buried in some cases along with telephone or electric wires in underground conduits. Amplifiers placed about every one-third mile along the cable keep the signal strong. The charge to subscribers typically runs about $15.00 to $20.00 for installation of the cable, and about $5.00 a month for the actual service. Extension connections are available to service additional sets of subscribers for an extra fee.

The potential of a cable system is defined by its technology; cable television is a system for bringing television pictures directly to the television set (or radio signals to a receiver) over a shielded wire (coaxial cable) instead of through the air via an antenna. A high antenna, especially when coupled with relay of television signals by microwave, enables a cable system to offer programs from a considerable distance; not only can the subscriber receive stations that normally are blocked by mountains or tall buildings, but also stations that, even under perfect conditions, would be too far away to be picked up. To do this, the cable operator places an antenna close to the station he wants, and directs that signal to an antenna in the area he is serving. It is technically possible, for example, for a Detroit cable system to transmit a Chicago, New York or Boston station. No longer need a person's television choice be limited by the area in which he lives. (Recently promulgated FCC rules, however, will effectively limit these possibilities for the top 50 TV markets, which includes Detroit.)

In addition to transmitting over-the-air signals from existing television stations operating in the vicinity and picking up distant signals via micowave or cable link, cable television is capable of producing local programming which can be originated for each cable system over unused channels. Locally developed programming can be produced in a studio or on feeder lines and sent to individual homes. Programs can range from additional entertainment to cultural, commercial and public service programming. Finally the existence of cable lines connecting houses to headend facilities means that many non-television services can be provided through two-way use of cable such as business computer access, banking services, market surveys and gas meter reading.

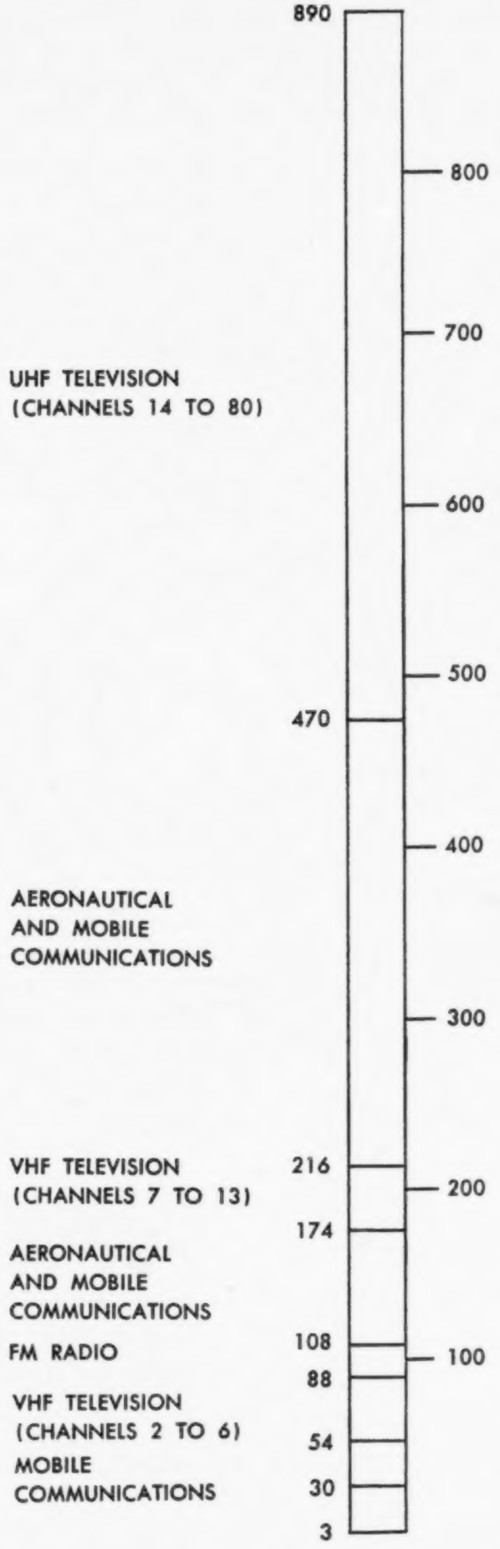
Transmission to the set of television signals by coaxial cable, free from the interference of air currents, winds, static, airplanes flying overhead, lightning, nearby electrical appliances and the like, guarantees the subscriber a clear, unobstructed picture, in much the same way that telephone calls, which also depend on wire, can be made without distortion in any weather, at any time of day. This protection from outside interference is especially important for the 20 million U. S. households which have color television, for color signals, which require a wider bandwidth than black-and-white signals, are more easily impaired by the echoes and reflections of urban living.

But it is the number of signals that the coaxial cable can carry that marks the difference between cable and the broadcast system. The cable is a thin copper wire surrounded by a layer of polyethylene foam and sheathed in copper and aluminum. Equipping the cable with reversing amplifiers will make it possible for the subscriber to talk back by sending messages to a central receiver point.



COAXIAL CABLE used in cable television system typically has four layers. The main cables are about three-quarters of an inch in diameter; the cables into the home, less than half an inch. In most systems the cable is suspended in utility conduits or on utility poles.

RADIO-FREQUENCY SPECTRUM


890
800
700
UHF TELEVISION
(CHANNELS 14 TO 80)
600
500
470
400
AERONAUTICAL
AND MOBILE
COMMUNICATIONS
300
VHF TELEVISION
(CHANNELS 7 TO 13)
216
200
174
AERONAUTICAL
AND MOBILE
COMMUNICATIONS
FM RADIO
108
100
88
VHF TELEVISION
(CHANNELS 2 TO 6)
54
MOBILE
COMMUNICATIONS
30
3

RADIO-FREQUENCY SPECTRUM extends from three million megahertz, or three million cycles per second, to 890 megahertz and is used for a number of purposes. The upper and lower operating limits of cable television transmission are respectively 300 megahertz and three megahertz.

Normal VHF television, which uses the air wave frequencies of 54 to 88 megacycles per second and of 174 to 216 megacycles per second, can only provide 12 channels within that range. Telephone service, which has a frequency bandwidth of 3500 cycles per second (narrow band) can carry thousands of two-way connections simultaneously. Cable television, on the other hand, has a frequency bandwidth of 300 million cycles per second (broad band) and it obviously has an even greater potential capacity; as Federal Communications Commission Nicholas Johnson emphasizes, "Coaxial cable is to telephone wire what Niagara Falls is to the garden hose."

The technology has already been developed for carrying up to 80 black-and-white channels simultaneously over a cable. However, it is not yet economically feasible. Present reception is limited because the standard home television set cannot receive more than twelve channels without added electronic equipment; this problem can be met through use of a set top converter or installation of dual cables with a switching device. The Federal Communications Commission will require that cable systems, in the top 100 markets, have a capacity of at least 20 channels. San Jose, California, and Dayton, Ohio are planning a 42 channel system, and 64 channels are being installed for cable television in Akron, Ohio.

Transmitting television signals by cable removes the problems of channel scarcity that has shaped today's broadcasting. In its place will be what the Sloan Commission on Cable Communications calls the "television of abundance." The need for stations to support programming which appeals to the lowest common denominator of mass audiences will be lessened. Stuart P. Sucherman, a program officer of the Ford Foundation, predicts: "From a system that dictates programming on a national or at best regional level, broadcasting can be transformed into a medium by which even the smallest community can effectively communicate with itself. In an increasingly impersonal society where governmental, economic and social structures are so large, the ability to reverse the process of bigness, to redirect energies to local problems and to establish local communications can have enormous value."[2] The media bottleneck will be alleviated by widening the neck. What's more, even after local programming has been added to national and regional programming, there will still be room on a cable system for a range of other electronic services — commercial, educational, social and municipal — that will replace the need for physical travel with an electronic impulse.

3. GROWTH OF CABLE TELEVISION

The public appetite for television, as indicated by the fact that more than 95% of all American homes have at least one television set, has contributed to a steady growth of cable systems. It was in response to communities which were unable to receive television signals that cable television, known as Community Antenna Television (CATV) service began. Most cable services were small enterprises known as "mom and pop" operations and were conducted locally offering a purely local service. They provided television where there otherwise would have been none, or at best a few poorly received signals. CATV services added to the audiences of the television stations they imported, without threatening in any way those stations or any others. By 1952, the first year that statistics on the new system were compiled, there were 70 cable systems serving an estimated 14,000 subscribers. Ten years later, 1962, there were 700 operating systems with 725,000 total subscribers; and by 1971 there were 2,570 systems with 5,300,000 total subscribers — about 9 percent of American homes — with industry revenues of approximately $300 million.[3]

The FCC's concern for the needs and interest of both UHF and VHF stations was reflected in their rulings handed down in 1968 which effectively froze cable television expansion in the large cities by ruling that cable operators could not import distant broadcast signals into any of the nation's top 100 markets. These markets embrace approximately 90 percent of the nation's television homes. And to date, only 1.9 percent of TV homes in major cities are currently on the cable.[4]

The average cable system has 2,000 subscribers. In Michigan, as of January, 1970, there are reported to be 36 cities with operable cable systems and eleven in the developmental stage.[5] Most of the systems are of relatively low capacity and exist primarily to supply the viewer with clear and strong signals which he would otherwise be unable to receive.

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[2] Sucherman, op cit., p. 14.

[3] Cable growth figures from **TV Factbook,** Services Volume, 1971-72 edition, p. 81-a.

[4] **Cable Television in the Cities,** Charles Tate, Editor, 1971.

[5] Michigan Municipal League, **CATV in Michigan Municipalities,** No. 119.

By the end of the 60's, the FCC began to reflect a new attitude. The broadcast industry was not united in its opposition to cable, for some broadcast interests were beginning to venture into cable. As cable spread, its public constituency grew, and frustration with stringent rules on importation of distant signals was widely known.

On March 31, 1972 the latest FCC rules regulating cable went into effect. While the rules regarding the importation of distant broadcast signals are not as liberal as cable advocates would have wished, all expectations are that they will encourage unprecedented growth and expansion of cable in major cities in the next decade. "Within the next ten years, cable penetration is expected to reach 70 percent of the total TV homes and to produce industry revenues of $4.4 billion. One reason for these optimistic projections is that in addition to the more than 2,500 operating systems, another 2,300 cable franchises have been granted by local communities and an additional 2,600 applications are pending."[6]

4. POTENTIAL OF CABLE TELEVISION

The extent of the uses to be made of cable television will depend upon the channel capacity and the technical standards that the Common Council insists upon for cable development in Detroit. A cable system can provide high quality color reception; import additional broadcasting signals from other parts of the country; provide continuous stockmarket reports and notices of community events; make it possible to see new movies or special sports programs at home; originate special interest programs such as children's shows, hobby exhibits and demonstrations or sports shows; originate community programming by community groups for the community; offer pre-school, adult education, open university and foreign language courses; provide social service information such as job opportunities, welfare requirements and procedures, transportation schedules, drug rehabilitation, legal information and programs on nutrition and disease recognition; and enable the continuing education of professionals through special conferences.

When two-way cable is implemented, the potential uses will be expanded. The viewer can respond to a message on his set through pushing a button or operating a small keyboard on his home terminal. With this "talk-back" ability the viewer could participate in panel discussions or game shows from home, answer questions in regard to educational programs, participate in market or opinion surveys or even cast a ballot, order goods from a store or make his own plane reservations, request special social service information or do his banking. His home electricity, gas or water meter can talk back to a central computer so that meter reading and billing are automatic. The viewer can request special information from a library, or request the days' newspaper or the week's magazine. The information could be displayed on the screen or recorded on a facsimile device; billing, if any, would be automatic. Mail could be delivered the same way.

Expanded two-way communications — with the transmission of pictures and voice instead of just digital responses — makes possible centralized traffic control, comprehensive instructional television in the schools, flexible training courses for police, firemen and other city employees, crime surveillance, sharing of instructors between such institutions as Wayne State University and the University of Detroit, records transmission, expert testimony in court cases, communications between health clinics and Detroit General Hospital.

The possibilities for the use of cable are myriad, and they will significantly alter the way life is lived. A large proportion of any given day is spent in pursuit of information — meetings, shopping, trips to the library, banking, trips to a government office are all essentially problems of communication. With a cable system, most of the communicating can be done from home. It is even feasible for a large amount of office work to be done from home; instead of punching a timeclock at 9, a clerk could punch his home keyboard, and the day's paperwork would be delivered to him by facsimile. Instead of offices, banks, libraries and schools needing to expand their physical capacity, they may need only to expand their electronic capacity.

Full use of the potential of cable television in Detroit would have a substantial effect on the city's political, social, cultural and educational systems.

Political. A serious question confronting our democratic society is whether it can give its citizens a meaningful sense of participation in the everyday affairs which affect their lives. Our democracy had its origins in the town meeting, where people had a chance to hear and be heard, a chance to feel they belonged. But there is doubt whether the values of democratic participation can meaningfully be experienced in a large, highly complex, mass-oriented urban culture, a culture which by its very nature demands remote institutions. The Committee believes that new and meaningful potential for a sense of political participation can be provided through a cable system designed so that individuals and groups have not only the right but the opportunity to be seen and heard. A cable system which guarantees such open access can become a forum where voter and candidate, citizen and government, can express viewpoints freely and openly without undue difficulty and expense.

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[6] **Cable Television in the Cities,** Charles Tate, Editor, 1971.

Social. Continuing questions face Detroit about how to develop a sense of community, how to counter the alienation of the generation gap, the racial gap, the ethnic gap, the economic gap. In an earlier day, it was thought that a sense of community would grow out of a sense of uniformity. In more recent years we have become aware that a new sense of community will grow out of a greater appreciation of our diversities. A properly designed cable system will help us enrich our sense of community in this way, for it will enable citizens of many different backgrounds to have access to the communications network of the city. They will be putting messages into as well as receiving messages from the communications medium; such interchange gives a citizen a stake in his community.

Cultural. Estimates are that there are over 60 identifiable ethnic groups within the City of Detroit. We are becoming increasingly aware that our lives are enriched as we have opportunity to experience the rich cultural backgrounds that these many ethnic groups still treasure. Their music, their dances, their festivals all are a part of our pluralistic culture. But too seldom do these ethnic groups have the opportunity to share their cultural heritage. A cable system with open access would give such groups wide opportunity to put on their own programs.

There are other dimensions to cultural enrichment that broad access to cable can serve. We are moving into a time of increased leisure, of the four-day week, of increased discretionary use of time. A growing number of persons are turning to the arts — music, drama, poetry, dance, painting, sculpturing — as ways to find meaningful expression. What better way for these valuable cultural pursuits to be displayed than through the new medium of cable television.

Educational. The general dissatisfaction with public and higher educational facilities indicates a need for a thorough renovation of program and presentation. In an increasingly electronic age, expanded use of television seems a natural way for educational content to be presented to the student. Cable television will enable the lessons to reach the student — be he preschooler, elementary or secondary age, dropout, college student, or adult — in his home. Yet, with two-way capability on the set, the student will never be isolated from his instructor, in fact, the instructor will be able to keep watch of individual progress. Cable television offers a means of relieving the classroom crowding that has forced districts to half-days or crowded rooms. It also has great potential for broadening the educational opportunities and their availability for the residents of Detroit.

Obviously, cable television will not directly reduce the rate of unemployment in Detroit, or the rate of infant mortality, or the rate of political dissatisfaction or citizen alienation. But the effect, though indirect, will be significant. Television today is the most popular, most believed, most powerful form of the media. It reaches all ages, economic and racial groups. Minority groups, especially blacks, the young and the poor, all watch and believe television more than their white and middle-income counterparts do. Many social problems can be traced to a lack of information — knowledge of where jobs are available, knowledge of proper prenatal care, knowledge of how city government operates — and until now it has been the burden of the person who needs the knowledge to somehow go get it, or else do without. Cable television offers a way to reverse the procedure: the information is brought to the home where the citizen can use it, in comfort, privacy and anonymity. The Common Council, in its decision in cable television, will be able to work a dramatic, effective change in the urban lifestyle.

I. NEED FOR ENGINEERING AND FINANCIAL PROJECTIONS

RECOMMENDATIONS:

1. THAT THE CITY DECLARE A MORATORIUM ON ALL CABLE TELEVISION DECISIONS FOR THE PURPOSE OF SECURING ITS OWN FINANCIAL AND ENGINEERING PROJECTIONS: SUCH ENGINEERING AND FINANCIAL PROJECTIONS SHOULD DETERMINE IN GREATER DEPTH THOSE QUESTIONS BEYOND THE CAPACITY OF THIS LAY COMMITTEE, INCLUDING, BUT NOT LIMITED TO:
    - (a) FEASIBILITY OF PUBLIC FINANCING VIA GENERAL OBLIGATION BONDS AND/OR REVENUE BONDS.
    - (b) SOFTWARE OR PROGRAMMING COSTS REQUIRED INITIALLY IN ORDER TO PROVIDE THE FULL RANGE OF SERVICES RECOMMENDED BY REPORT.
    - (c) MARKET ANALYSES TO DETERMINE TIME-FRAME FOR SUBSCRIBER PENETRATION.
    - (d) POTENTIAL REVENUES FROM PAY T.V. AND NON-TELEVISION USES OF SYSTEM, E.G., DATA TRANSMISSION, FACSIMILE REPRODUCTION, ALARM SYSTEMS.
    - (e) BENEFITS, INCLUDING COST SAVINGS, TO MUNICIPALITY THROUGH APPLICATION OF CABLE TO MUNICIPAL SERVICES SUCH AS POLICE AND FIRE PROTECTION.
    - (f) EVALUATION OF COMPETING CABLE TECHNOLOGIES (E.G., DIAL VERSUS CONVENTIONAL SYSTEMS) AND COMPLEXITIES OF INSTALLATION.
    - (g) THE POSSIBILITY OF PARTIALLY SUPPORTING PROGRAMMING COSTS FOR THE NON-COMMERCIAL T.V. ASPECTS OF THE CABLE SYSTEM THROUGH THE ALLOCATION OF FUNDS FROM GROSS REVENUES OR REVENUES FROM ADVERTISING.
    - (h) THE DEMAND, COST AND BENEFITS FROM COMMUNITY, PUBLIC ACCESS, MUNICIPAL AND EDUCATIONAL INOLVEMENTS AND USES.
2. THAT SUCH ENGINEERING AND FINANCIAL PROJECTIONS BE PERFORMED NOT ONLY TO DETERMINE THE VIABILITY OF PUBLIC FINANCING AND OPERATIONS, BUT IN ORDER TO RESPONSIBLY DETERMINE WHETHER AN ACCEPTABLE LEVEL OF SERVICES (AS RECOMMENDED IN THIS REPORT) CAN BE PROVIDED UNDER ALTERNATIVE MODES OF OWNERSHIP.

1. THE ELEMENTARY ECONOMICS OF CABLE

The economics of cable relate primarily to the need to provide revenues to offset the cost of the distribution system (hardware) and of the programming (software). The distribution system will require extensive capital investment for construction and installation. Initial estimates place these costs at from $30 million to $120 million, depending upon the system contemplated. Involved are construction of a central headend facility as well as satellite production centers, the trunk lines between headends and satellite centers and the massive system of feeder lines that will in five years (as called for in this Report) pass by every residential unit in the city. In addition, there are costs of required "drops," the connecting lines to each subscriber, as well as costs of set-top converters for utilization of a high-channel capacity system.

At the same time that there are heavy costs incurred for distribution, the system must provide sufficient income to pay off long term debts and operating expenses and produce additional revenues for programming that will attract subscribers. Monthly subscriber fees provide the essential initial source of revenue to finance the system. There are also revenues from second sets somewhat analogous to the cost for extension telephones. Further, there are fees collected for installation charges although these have often been waived as a promotion gesture to increase the number of subscribers.

Much has been made of importation of distant signals to augment the network programs, but where reception is good such as in the Detroit area and where there are a number of existing channels, the significance of distant signals is minimal. Essentially, what will be required to attract subscribers is a high volume of local interest programming as well as selective, high quality, special interest programming, particularly in the area of sports packages, new motion pictures and cultural events. Although there is a developing industry involved in packaging program materials, much of the work to develop programming must be performed locally. Programming can be extremely expensive both in terms of necessary staff and payment of royalties. This type programming is essential, nevertheless, if the system is going to be attractive to subscribers in the area.

A cable system involves several specific cost factors which are generally considered part of the basic economics of cable. One is the number of miles for which cable must be laid, multiplied by the per mile costs applicable to the terrain and other conditions involved. These apparently can vary from $4,000. for over-ground installation, to over $50,000 per mile for under-ground installation. There are advantages to higher density of dwelling units, so that more units will be accessible per cable mile. There are also costs of set-top converters which can run installation costs as high as $100 per connection. Other costs are for head-end equipment and antennas, about $50,000 to $100,000, and for program origination facilities and equipment.

The great advantage of cable over conventional broadcasting systems is that there is a significantly expanded channel capacity and the incremental cost for adding of operational channels is minimal — generally restricted to fairly inexpensive origination equipment and staff to operate it. A full color studio may cost $100,000. Even a number of such studios would not constitute a very large percentage of the costs for a system, particularly as measured against distribution costs. Estimates for programming costs range around $50 per hour for cablecast time.

The percentage of subscribers per cable mile or "penetration" or "saturation" rate is a critical measurement for system success. Generally speaking, at least a 35% rate is usually necessary to pay off basic system costs.[7] The subscriber fees represent the basic income source for a cable system and the fees have generally been in the $5-$6 a month category, with additional charges for hook-up of a second set and for costs of installation, the "drops" between feeder line and set (sometimes waived in promotional campaigns). These average $15-$20 per unit. Costs of set-top converters, about $80, would presumably simply be amortized without attempting to make any profit.

Another revenue source is advertising. To the degree that special interest programming becomes operative it provides a lucrative basis for advertising directed at those with such interests. The analogy is between current "shotgun" advertising approaches and the more direct rifle approach. The profitability of special interest car and camera magazines is a case in point. Although the response may initially be slow, local advertising should become a useful source of revenues. However, to the extent that it is carried on the "community" portion of the channel spectrum it will not provide revenues for the system operator. It may in such cases, nevertheless, reduce the operator's need to support programming on such channels. And, of course, the operator will be able to get revenues from advertising on channels he operates himself.

These channels allocated to the operator also present a source of revenues, if properly handled, when used for merchandising purposes. Stores may wish to display wares and take sales orders by telephone. Subsequently, two-way cable would allow for orders through the system. The operator may desire to put on his own programming and carry advertising like existing broadcast channels or to simply rent out the channels for the use of others.

There are other ways to generate revenues. Portions of the spectrum can be used for carrying computer services for business and governmental purposes. Then, there are the potential revenues from Pay TV. Although some have tried to label cable itself as Pay TV, the term as used here refers to a separate charge for certain programs

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7. There are approximately 500,000 dwelling units in the City of Detroit. Assuming that 80% of such households have television sets, this means a potential residential market of 400,000 subscribers. There will also be business subscriptions, but these are too hard for the Committee to estimate at present. In any event, at $60 per year per subscriber, 100% subscription would generate $24 million in revenues annually. At a subscription rate of 35% this would still generate revenues of $8.4 million once the system is operative.

over and above the basic monthly charge. In effect, the user of that particular program foots the bill rather than imposing higher general subscriber fees on all system users. However, the economic implications from Pay TV are so significant that it should be approached separately and only after full understanding is gained of its potential financial impact on its users (see Section IX, ADDITIONAL SERVICES). In the far future, cable may also be used for facsimile reproduction, replacing current distribution modes for newspapers, magazines and mail. It is necessary to have figures as accurate as possible in order to determine the financial necessity for these extra sources of revenues. Such figures are critical in determining the effect that reservation of cable spectrum for such uses will have on public services.

2. PRESENT LACK OF NEEDED INFORMATION

Although there is some rough information available to provide rule-of-thumb figures for installation and programming costs, there have been no systems installed in the country comparable to Detroit in size. In New York the systems cover relatively compact areas. There, between the two operative franchises there are only 70-80,000 subscribers, about one-fifth of the potential subscribers in Detroit. Moreover, each city has its own individualistic engineering and construction problems because of local ordinances, street design, density of buildings, etc. The cost implications of such variations mean that no financing is possible unless accurate figures are offered.

The telephone company has some basic information relative to the extent of cable required for a system in Detroit; but a specific analysis of Detroit's conditions and establishment of costs of materials and construction is necessary to determine the realistic cost for installation of the system in the City. Rule-of-thumb figures are just not sufficient for purposes of obtaining capital funds for installation of a system. Further, fairly exact costs of program packaging must be obtained and costs of obtaining sport packages and movies must be explored to determine what kind of programming realistically will be available in the system. Thus, program packagers and knowledgeable production directors must be consulted to start assembly of information and data on programming costs. Moreover, owners of sport packages must be contacted for initial discussions about the cost of obtaining rights to such events. None of this information is available at the present time and must be specifically determined to assess the feasibility of financing any system for the City of Detroit regardless of ownership. Presumably such information could be gathered or developed within a six-month period after necessary funds for the analysis were obtained.

3. DECISION REGARDING PUBLIC OWNERSHIP REQUIRES PROJECTIONS

An essential element of the decision whether a cable system for Detroit could be owned and operated in large part by a public authority (as recommended herein) will depend upon the feasibility of financing for such an entity. Approvals by the Municipal Financing Commission and the feasibility of state legislation to authorize a public authority to proceed on this proposal would have to be based upon realistic figures concerning costs of the system and its potential financing.

Although there are several revenue sources to pay for such a system, they will depend upon the efficacy of the programming and the level of saturation or percentage of subscribers per residence passed. Therefore, once the costs of the system are determined, it is still necessary to determine what type of revenues can be expected based upon the anticipated programming. These revenues must be sufficient to cover repayments on the bonds obtained as well as to provide for necessary operating expenses including programming costs.

It is not anticipated that the City of Detroit, the County or the State will be directly responsible as guarantor of the bonds. However, whether general obligation or revenue bonds are used it is necessary that there be properly justified expectations of revenues to offset financing costs.

4. DECISION REGARDING PRIVATE FRANCHISING REQUIRES PROJECTION

a. CITY WILL BE UNABLE TO RESPONSIBLY BARGAIN WITH PROSPECTIVE FRANCHISEE WITHOUT ITS OWN PROJECTIONS

If it is determined that public authority ownership of the system is not feasible under the circumstances it would still be necessary for the City to have comprehensive estimates of costs for the system, the necessary programming activities and other related expenses. These are required to determine what kind of revenue and service returns to the City are reasonable if a private franchise is granted. It would be quite akin to a gift of public monies if the City were to negotiate for a system that might have significant profits yet fail to obtain for itself either appropriate financial returns or contribution of services to itself and its citizens. And without necessary information and projections concerning the system, the City would be in no position to bargain or disagree with the projections provided by the franchisee. The City needs the projections to determine what should be required for the City as well as the level of financial returns permitted a franchisee.

b. CITY WILL BE ABLE TO HOLD FRANCHISEE TO FRANCHISE REQUIREMENTS

Although the franchise ordinance can set system requirements and particularly requirements for public services to be provided by the system, enforcement of these provisions may require resort to cancellation of the franchise agreement. In most circumstances that will not be really feasible. Arguments will be made that the franchisee has run into unanticipated problems and less revenues are coming in than expected. If a franchise has been granted requiring high public services the operator may plead "cost squeeze" and obtain permission to reduce such public service requirements based upon his later "discovered" fiscal realities. It is essential that the City know from its own financial projections the reasonable extent of services that it can require and expect of the franchisee. Once it is determined realistically what the system should provide in terms of City services and in terms of financial returns to the City, it will be possible for the City to hold fast to its requirements for the franchisee and, if necessary, to revoke the franchise.

5. PROJECTIONS MUST DETERMINE:

a. FEASIBILITY OF SUPPORTING PUBLIC SERVICES — INCLUDING PROGRAMMING — THROUGH ALLOCATIONS FROM GROSS REVENUES

We have previously noted that one of the essential elements of an operating cable system will be the provision of a variety of public services both to the City itself and to the public through support for channel facilities, staffing and programming costs. Only with a clear idea of the extent of revenues that can be expected from the system can one determine what these allocations should be. Without such projections the City will be totally dependent upon the projections provided by the system operator and will have to enter blindly into an agreement which may not be fair to either the City or the system operator. If revenues are available, the City then will have to make its financial analysis as one would with a public utility to determine what proportion of revenues should be allocated to these other services. Only by making such an analysis beforehand can the City be assured that it is not giving away potential City revenues.

b. FEASIBILITY OF PUBLIC FINANCING VIA GENERAL OBLIGATION OR REVENUE BONDS

Public financing has some significant tax advantages over private financing for purposes of obtaining funds to construct and provide initial operating expenses for the system. Private sources of financing do not have these tax advantages and therefore must charge higher interest for loans. Neither a public or private lender, however, would provide funds in the amount necessary without sufficient information concerning the financial feasibility of the cable system. Regardless of the type of financing involved, accurate cost and revenue estimates must be available.

c. FEASIBILITY OF PRIVATE FRANCHISE WITHOUT LOSS OF PUBLIC SERVICES

All of the various services called for in this Report to make cable a meaningful communications medium for the City and its residents will cost money. The allocation of channels for "public" uses, the necessary equipment, connections and required staff, all have specific costs. The allocation of channel capacity to educational, municipal, public access and community channels means that these channels are unavailable to provide revenues to the system operator. Training programs, cost reductions for certain users or such items as funding of programming costs also involves real financial outlays. In the event that public ownership is not feasible, the determination of the cost of such services is essential in setting the requirements which must be met by the private franchise holder.

The Committee feels that these public services are essential elements of any cable system adopted for the City of Detroit. Without the necessary projections, the City will not be in position to determine, when confronted by cost figures of any private franchising applicant, the reasonableness of requiring these public services. The only way to protect against erosion of these public services is for the City to be fully prepared with its own projections.

d. WHETHER AN AREA-WIDE SYSTEM IS NECESSARY TO ACHIEVE FINANCIAL FEASIBILITY

There may be certain cost savings in development of an area-wide or metropolitan system as opposed to a city-wide one. A recent study of the Dayton, Ohio region concluded that the system could be developed at less expense to those in the region if a larger metropolitan area was the basis for the system. Without the inclusion of the City of Dayton in a larger metropolitan area, financial projections indicated the regional system would not be feasible at all. For the City of Dayton, however, the higher density of dwelling units made construction of the system there financially viable. Outlying townships, however, would not be able to support it by themselves.

The costs which are affected primarily may involve reduced cable installation costs for outlying areas. Thus, in Detroit, contrary to Dayton, there may be significant cost savings per subscriber obtained in extension of the system beyond the City's boundaries. It may develop that it is highly advantageous financially to the City of Detroit to have its system service a wider area. Also, the costs applicable to the City's system (and possibly the subscribers within the City) might be reduced because of higher levels of subscription out of the City as well as cheaper installation costs for the cable.

A cable system which extended to the metropolitan or even regional area, whether or not there were significant financial cost savings, has a great potential for building bridges across the existing barriers. Such an expanded system might provide for the exchange of ideas, enhance understanding between diverse interest groups and build higher levels of trust between peoples within and without the City. This potential may have enough far-reaching benefits for the City to recommend an area-wide system even without associated reduced costs. Nevertheless, before any decision can be taken one should determine what the cost implications are from a metropolitan area system as contrasted to a system solely for Detroit.

6. PROJECTIONS MUST CONSIDER:

a. COMPETING CABLE TECHNOLOGIES

At the present time there are two basic distribution technologies available for a cable system. The first involves conventional cable which presently has a capacity of approximately 12 channels and with a small set top switch can be increased to 24 channel capacity. Laying of a second cable, particularly at the same time as the first (because of related cost reductions), can permit the system to expand to 48 channel capacity. If two-way cable becomes a reality, it would require that some of the outgoing channel spectrum must be utilized for incoming signals and therefore two cables seem a minimum requirement for a high channel capacity system.

The cost of a two cable system also involves a set top converter to select among the various channels. This adds about $80 a household to installation costs. For the two-way aspect, additional amplifiers to feed signals back to the production centers must be inserted along the cable feeder system to make it operationally two-way. Cost estimates must be obtained for two-way equipment. As demand increases, to enlarge the channel capacity of a system will involve additional costs in terms of equipment to amplify signals and extend the channel capacity. Technically, up to 80 channels could be carried on one cable and conceivably 160 channels, minus those necessary to provide two-way return communications, are technically feasible within the not too distant future. The ultimate cost of the system needed for Detroit in the next ten years must be determined before embarking upon any system. Projections must be based on a 10 year model since future expansion may be inordinately expensive if provisions for it are not built into the system now.

The need for a 10 year projection is further mandated by the comparison of such a conventional system's projected costs against costs of a "dial" system such as Re-diffusion and Discade. These "dial" system are quite similar to that of the telephone system where a small capacity wire goes into the home which permits the subscriber to dial any one of a number of channels from local distribution centers.

There are, however, initial cost implications for a dial system. This occurs because the major initial installation is for a rather advanced system, for instance, with almost immediate two-way capacity. This is in contrast with installation of a more simplified conventional system which would be upgraded later. The item in a dial system of considerable expense is the switching mechanism. Thus, the necessary cost projections must determine in terms of a ten year period the needs and services that should be provided by a cable system and then measure which of these two technologies (or additional ones as they come along) should be selected for Detroit. Each type carries significant cost considerations and is mutually exclusive of the other from a technical standpoint. To some degree it may be possible to obtain such projection figures by permitting the suppliers of the hardware to present the cost effectiveness picture for each of their systems. In any event, these systems must be examined and costs obtained so that an intelligent decision can be made as to which technology should be adopted for Detroit.

b. DEMAND FOR, BENEFITS AND COST OF SUPPLYING RECOMMENDED PUBLIC SERVICES

The various public services specified in this report — which constitute in the Committee's opinion the basic justification for implementation of a cable system in Detroit — should be an integral part of the financial projections called for here. These projections should assess the consumer demand for the various services. It must be understood, however, that additional knowledge by the public is necessary before there will be a significant citizen demand for them.

Similarly, the benefits that may be derived both financially and in terms of service to both the City itself and to its residents should be assessed. It may be appropriate for the City itself, through its departments, to organize a task force to analyze and project potential benefits of such a system. The educational establishments in the area should do likewise. As these additional uses are fed into the projections they can form the basis for making some cost predictions concerning the services. Again, it must be understood that the newness of cable, particularly respecting its application to these kind of services, may restrict the extent of analysis possible.

c. COSTS OF COMMERCIAL PROGRAMMING NECESSARY TO ATTRACT NEEDED SUBSCRIBER REVENUES

Channels allocated to the system operator for purposes of generating revenues can be applied to commercial uses. This will involve cost of soliciting and developing commercial television usage of the channels, such as merchandising shows, as well as costs associated with development of commercial non-television uses such as facsimile reproduction and various computer linkages. Also, the expenses involved in obtaining specialty packages such as movies, sports and cultural events should be carefully explored to determine the feasibility of such uses.

Generally speaking, these costs will be incurred in two categories. One will be for personnel to solicit advertising or sell programming time, to operate equipment, and to originate local programming. A second will be the cost of purchasing program packages and specialty events.

d. SUBSCRIBER PENETRATION AND REVENUES

Although there are general rule-of-thumb figures available for subscriber penetration, the various factors which go into such a computation must be established with more accuracy than available at present. The factors are basic subscriber fees, secondary household hookups, installation charges and the cost of additional in-home equipment such as set-top converters. Each of these represents a source of revenues but has associated costs. Generally speaking, subscriber fees on a monthly basis plus secondary hook-ups are the major sources of revenues. These can then be multiplied against the potential number of television households per cable mile. The more households per mile the greater the potential return. Based on the projected costs for the system, the necessary penetration levels can be ascertained.

There are, of course, interactive aspects of this projection. The services offered will to a large degree determine subscriber penetration and these services to a major extent will depend on their financial feasibility as related to the system constructed and the revenues that may be generated. The Committee made a preliminary analysis of the financial considerations. Certain assumptions were made and will have to be made for purposes of the recommended projections. The market analysis will have to be based in part on hypothesized services. These will be critical factors, moreover, no matter what form of ownership is involved. It should be understood, however, that as services grow so too should revenues, both from the increase in subscribers responding to the services as well as from revenues from sale of commercial services. Thus, it is only the initial stages of the development of the system which would seem to require total reliance on subscriber fees.

e. NON-SUBSCRIBER COMMERCIAL REVENUES

Additional market survey and analysis is required to determine the commercial potential of

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the system. How much interest is there for local firms to advertise or to market their goods by means of a cable system? What is the market for utilization of the cable system as a computer network? Will the system be attractive to local advertisers? All of this kind of information must be gathered to the extent available or forecast where it is unavailable. Again, this makes up a very critical element in determining the feasibility of the cable system.

f. BENEFITS AND COSTS SAVINGS TO MUNICIPALITIES THROUGH USE OF CABLE IN PROVIDING MUNICIPAL SERVICES

There are a variety of potential uses that municipalities can make of cable, such as educational programs, vocational rehabilitation, job information and police recruitment. Inspectors may be able to monitor construction work through mobile cameras. Fire and police monitoring of businesses and traffic conditions may be another useful function for cable. The potential is almost totally untapped and in large part unexamined. Benefits must be assessed and the possibility of costs savings to the City through the use of cable analyzed. Admittedly, there will also be costs for personnel and equipment in municipal use of the cable system. How much of these costs should be passed on to the system itself and how much should be paid for by the City is one of the issues that the projection should examine. By creative thinking it may be possible to provide a variety of presently costly public services at less expense through the cable. The knowledge of these costs savings should be a factor in the City's determination as to both its interest in and its requirements for a cable system.

g. DESIRABILITY OF ALLOWING ADVERTISING ON COMMUNITY CHANNELS

Many critics warn that advertising has created a low level of program content on existing broadcast channels. A similar danger is possible for cable if advertising needs dictate programming decisions. To some degree, permitting advertising on community channels could influence the content and usefulness of these channels as various organizations or the operators of these channels vie for the advertising dollar. Nevertheless, advertising on such channels may be a significant source of funds to pay for their programming. It may be that high quality, special interest programming is possible only with significant support. Such programs, in turn, will have a major impact on the system's total saleability and, therefore, subscriber penetration. Advertising, thus, may represent a necessary element if such programming is to get off the ground. How such advertising will be handled, when it will be permitted and what charges will be imposed are three important issues. Further, the impact of loss of advertising on the commercial segments to community channels will have to be assessed. (See REVENUE, Section VI.)

7. COST OF RECOMMENDED PROJECTIONS:

a. INSTALLATION FEASIBILITY AND COSTS, INCLUDING EVALUATION OF COMPETING TECHNOLOGIES

It is difficult at this point to determine the costs that will be involved with making the projections which are so vigorously recommended by the Committee. Rough estimates by some of those knowledgeable in the industry have been about $100,000 for these projections. Financial support for the projections may be available from private foundations or the government. The Ford Foundation has funded through the Urban Institute in Washington, D.C., a center to provide just these kinds of services; they are to develop just the sort of information which the Committee is calling for. Similarly, both the National Science Foundation and the Department of Housing and Urban Development have strong interest in developing models to determine this information for other urban areas. Additional local sources of funding the projections should be examined as well.

In developing the projections, it is important that disinterested parties perform the necessary examinations and analysis and develop these projections for the City. A great deal of money may rest upon the validity of the projections. The City needs impartial advice. The one possible exception would be for equipment manufacturers to provide the City with an evaluation of their competing technologies.

b. MARKET ANALYSIS

This essentially involves the area of opinion research, and firms involved in opinion research may be the most appropriate sources of information on costs and techniques for the survey and analysis required. This effort would follow the development of certain initial assumptions on type of system and identified services to be provided.

This data then could be utilized as the basis for the determination of subscriber interest and penetration. There is also additional information which must be obtained from possible commercial users of the system as well as packagers of programming material which will involve potential costs and revenues for the system operator.

c. OVERALL FINANCIAL FEASIBILITY ANALYSIS:

Once the technology which should be installed in Detroit is identified, taking due regard for the needs of the system over a ten year period, and adding to this the data from the market analysis, some forecast for the overall financial feasibility of the system in Detroit can be made. In essence, this analysis must determine the feasibility of public financing and the form that it should take, the scope of the system necessary, the need and sources for financial support of local public services including programming and staffing, and, if there is resort to a private franchisee, the level of public services that should realistically be required.

2. RECOMMENDATION:

THAT SUCH ENGINEERING AND FINANCIAL PROJECTIONS BE PERFORMED NOT ONLY TO DETERMINE THE VIABILITY OF PUBLIC FINANCING AND OPERATIONS, BUT IN ORDER TO RESPONSIBLY DETERMINE WHETHER AN ACCEPTABLE LEVEL OF SERVICES (AS RECOMMENDED IN THE REPORT) CAN BE PROVIDED UNDER ALTERNATIVE MODES OF OWNERSHIP.

The Committee strongly urges that the financial and engineering projections as outlined in this section be performed, regardless of the mode of ownership. If the Common Council is to negotiate responsibly with any group, private, non-profit or public, it must have definitive data as outlined in the previous recommendation. Without necessary information and projections concerning the system, the City would be in no position to bargain or disagree with any projections provided by a prospective franchisee.

In sum, this analysis will determine the immediate feasibility of cable television in Detroit. It will also determine the basic requirements that must be incorporated in the system and establish a level of quality services and costs against which to measure **any** proposal for development of the system. The Committee is not unmindful that a realistic analysis of the feasibility of Cable TV for Detroit at this time may be negative. However, the justification for a cable system, in the Committee's opinion, lies in cable's development as a new communications system which can humanize, not further depersonalize, the residents of this City. If it cannot be built to assure these functions, it seems preferable to wait.

The Committee is further aware that the costs of making the projections and analysis called for here are not insubstantial, particularly in view of the financial plight which presently confronts this City. But to embark upon a venture in cable television without these projections could be disastrous for the City's own interest and particularly the interests and needs of its citizens. In fact, if it is necessary to delay action on these projections until funds are obtained for them, the Committee feels that such delay is justified and given the rapid technological and political developments concerning cable television, in the long run may assist the City to obtain a better system. The City Council must be armed with the necessary financial and technical information before it can or should move forward on a cable system for Detroit.

II. FINANCING AND CONSTRUCTION OF THE DISRIBUTION SYSTEM

RECOMMENDATION:

1. THAT THERE BE ONLY ONE ENTITY RESPONSIBLE FOR THE CONSTRUCTION OF THE CABLE SYSTEM IN DETROIT IN ORDER TO MAXIMIZE ECONOMIES OF SCALE AND INTERCONNECTABILITY NECESSARY FOR AN ADVANCED AND SOPHISTICATED CABLE SYSTEM.

Presently there is no city which has a cable system that would be comparable to Detroit's. Since Detroit's geographic size is considerably larger than that for which there is any existing cable system, the Committee had to consider what differences there would be between having a single entity responsible for the entire system and giving responsibility for geographical districts to different entities.

Before analyzing that question, however, the Committee examined the whole structure of a cable system and decided to consider separately the responsibilities for constructing the distribution system itself and for programming on that system. This would be somewhat analogous to the telephone company which provides a distribution system and, in effect, makes it available (usually by lease) to others with no control over program content.

There are two aspects of the distribution system: its initial construction and its subsequent operation and maintenance. Operation and maintenance are dealt with later, where decentralized programming responsibility is recommended. For purpose of construction, the factors considered by the Committee dictated the superiority of a single entity.

Interconnectability

Of major importance is the need for interconnectability between all portions of the cable system in Detroit. Without it, the City would become even further fractionalized. With it, there are major opportunities for enhancing communication between the City's residents. Given the variety of technology available for a cable system, systems developed separately might be incompatible and could not be reconciled with differences in the number of channels, the choice of converters or the general technology used. One system operator might prefer to install a single cable with more limited capacity, such as twenty-four channels, while another might wish to provide dual cable with far increased capacity, up to forty-eight channels at the start; still a third might prefer to go with some kind of a "dial" system. Under such circumstances, the systems could not be made compatible and interconnectability would be limited. Where there are multiple entities developing their own systems of cable, inter-connectability has not been too effective. For instance, the Committee understands that the two systems now operating in New York City have not yet provided for adequate interconnection, despite franchise requirements to do so.

Admittedly, it might be possible through either voluntary agreement or technical standards in a franchise to require consistency in all systems, but the outcome then would be the same as requiring construction under common direction. As a practical matter, it does not seem feasible to **enforce** common standards against a number of separate cable operators, particularly if they represent different forms of ownership. Different entities might have different requirements for the rate of capital expenditures, have different financing available, and have different timetables for development of facilities and distribution network.

Economies of Scale

Another advantage for centralized construction responsibility is avoidance of the possibility that headend facilities might be unnecessarily duplicated or inappropriately located as each franchisee considers cost and service factors for only its area. A single entity could avoid this problem.

One of the advantages of a single entity lies in its potential (and perhaps substantial) economies of scale, particularly in terms of centralized computers, local origination facilities, micro-wave

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connections, and similar aspects of the distribution system. For example, the different programming districts might share several complete and rather sophisticated local origination points, and supplement them with more limited facilities available in the satellite origination points.

Phased Construction Schedule

It is apparent that having one entity responsible for construction would allow for construction on a phased basis, so as to assure that the development timetable did not discriminate against any particular portion of the City. With multiple entities, this would not be likely to occur. Again, each franchisee might have different schedules and funds available to finance the necessary work.

Difficulty in Equitable Division of the City

Finally, the Committee recognized the difficulty in trying to divide the City on any equitable basis into franchise districts. For purposes of allocating responsibility for community channels and in locating satellite production facilities the Committee has recommended that there be five or more districts. It will be hard enough to develop geographical lines for these purposes. That decision, however, does not necessarily require development of equivalent districts. It will be much more difficult to divide the City equitably into districts for allocation between different franchise holders.

There are, for instance, many issues which would be extraordinarily difficult to balance fairly. For example, it seems necessary to assure that each franchise should have equal costs of installation in its area. This would mean that each might have to share the higher costs of installation in the downtown areas or along major thoroughfares which require the cable to be underground. Moreover, housing unit density relative to cable miles would have to be balanced to make the districts equal in installation costs per potential subscriber. It would be equally difficult to draw up districts with a balance of lower income and higher income residents. This can be important, since higher income families generally can be expected to have a higher initial rate of subscription. Add to these considerations those of equalizing racial and ethnic distribution in the City where the distribution does not follow easily defined patterns. To separate the franchises, **de facto,** by race seems improper, particularly since increased communications within the City is seen as a major potential of cable. All these considerations led us to conclude that the clear advantage lies with a single entity.

Multiple Franchise Advantages

There are several arguments usually advanced for dividing a large city into multiple franchise districts: (1) It might make it possible to compare the effectiveness of the various entities over a period of time, to develop some "yardstick" with respect to the kind of service and effectiveness of each entity. (2) Multiple district ownership has some potential to make the ownership entity in each district more responsive to local conditions. (3) It would reduce the initial capitalization required for any one entity. (4) It might be possible to develop different modes of ownership for each of the cable systems, including private, public and non-profit.

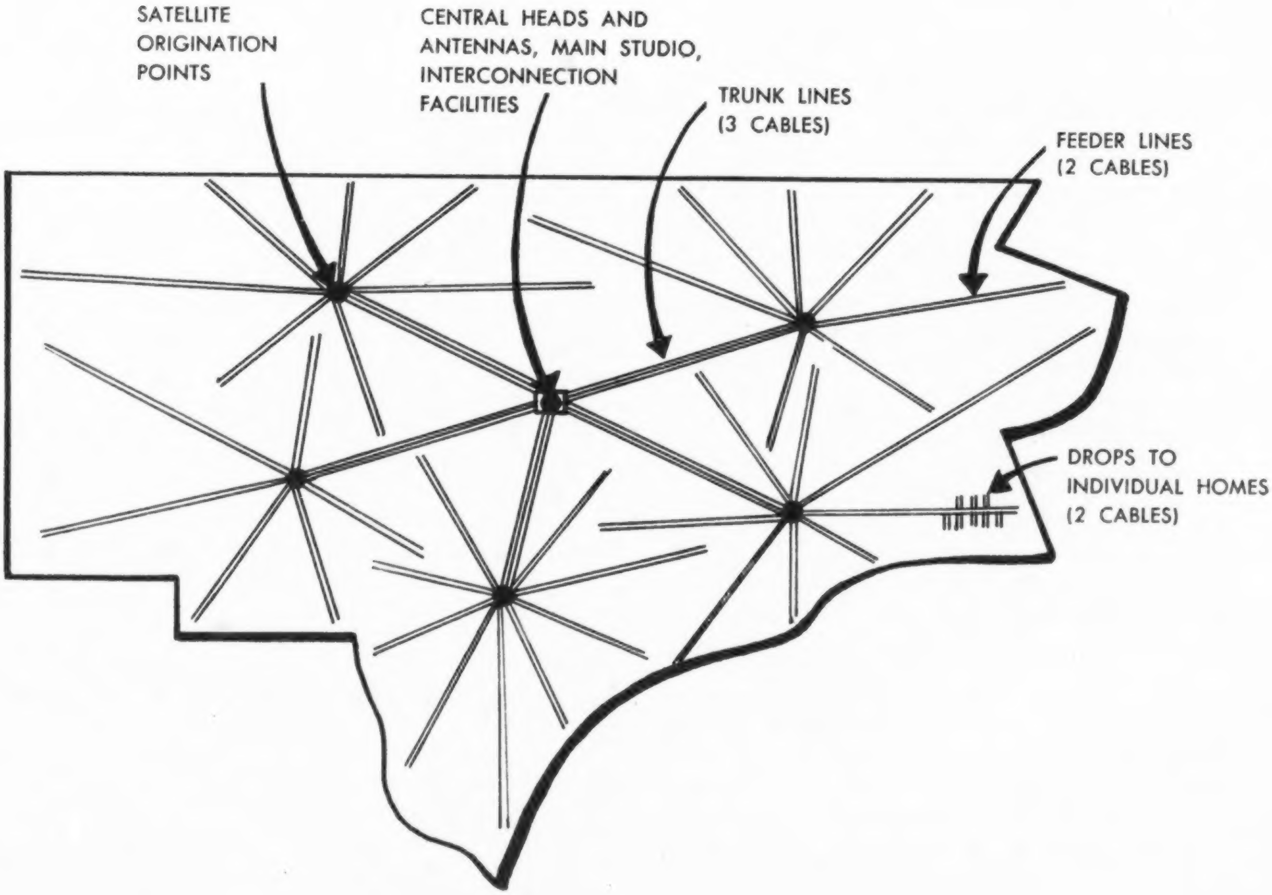
Conclusion

The Committee feels that the advantages for a single franchise far outweigh the arguments for multiple districts. Given the variations bound to occur between districts, "yardstick" comparisons of service in various districts would likely be invalid. The districts will not be comparable in terms of geography, household density, racial and ethnic constituency, etc. The individual financial position of various entities can be expected to cause variations in performance unrelated to management capabilities. In all, it is difficult to compare a number of monopolies against each other, where each is responsible for a distinct area.

The Committee was most concerned about the issue of local control. A significant objective of a cable system as envisioned by the Committee is to permit diversity of expression and viewpoint. It is our belief that community involvement can more properly be provided through allocation of the significant portion of cable time to the community, through Cable District Associations and the Community Cable Board. (See discussion, Section III.) This is, we believe, preferable to attempting to provide local control of the distribution system itself. Local influence of programming through specific administrations seems to us far superior to having a franchise allocated a geographic area in the City where those in the area **may** have some role in decisions.

While it is true that capital requirements would be lower for each of several franchisees, the funds necessary would still be significant. The ability to raise $6 to $20 million for one area may be just as difficult as raising a greater amount for the entire system. Further, fran-

HYPOTHETICAL SCHEMATIC OF DISTRIBUTION NETWORK


SATELLITE ORIGINATION POINTS
CENTRAL HEADS AND ANTENNAS, MAIN STUDIO, INTERCONNECTION FACILITIES
TRUNK LINES (3 CABLES)
FEEDER LINES (2 CABLES)
DROPS TO INDIVIDUAL HOMES (2 CABLES)

chisees would need to compete for much of the same loan funds and from many of the same sources. If there are entities which can raise the money and obtain the necessary management talent, there is still the question of whether all could do so — and perhaps most important, what happens to those citizens in the franchise area which is unsuccessful? Thus, although there are possibly some advantages for multiple franchises in reducing entry barriers for firms, this factor does not seem to outweigh the other considerations in favor a single entity.

In order to create opportunities for local business, management contracts or even franchises for operation of the system should be awarded either by function or by geographic districts thereby creating more opportunities for local firms. In that event, there is no responsibility for financing the construction of the system. The need to raise substantial capital is eliminated but there is still a greater number of opportunities, particularly for minority-owned firms.

The final argument involving diversity of modes of ownership may be sociologically interesting, but setting up such variations does not seem justified simply for the sake of having such different entities attempt to show the relative merits of each approach. It would be appropriate, however, not to limit the type of enterprise which would be given responsibility for various functions, either for management or construction of the system.

RECOMMENDATION:

2. THAT THE CABLE SYSTEM BE CONSTRUCTED BY A SPECIAL PUBLIC AUTHORITY OR NON-PROFIT CORPORATION, USING TAX-EXEMPT BONDING CAPACITY FOR FINANCING THE CAPITAL COSTS OF THE SYSTEM.

In considering who should construct the cable system in Detroit, the Committee was particularly concerned with the cable system's potential for becoming the pervasive communications medium for Detroit and its residents.

The Committee confidently predicts, for this reason, that cable systems in areas such as Detroit will ultimately be viewed as public utilities, whether called so or not. This is an outlook different from that taken during earlier stages of development of cable. The role of any cable developer or operator must therefore be highly regulated. Such regulation can be achieved through the franchising ordinance, through state or local regulatory agencies, through the FCC, or through a grant of authority to a public body as the operator. Strong regulation and limitations of profits through rate controls and service requirements would diminish the distinctions between private and public responsibility for the cable system.

The Committee has carefully explored the potential and appropriateness of public development of the cable system in Detroit. It is apparent that an extremely large investment would be required to build the system in Detroit. This is an area where there are both a high number of existing channels and relatively good television reception. Until its potential is understood and developed, there may be a small market demand for cable services. Because of these factors an investment in cable, here, may be quite speculative and risky. Traditionally, private enterprise has assumed such risks under the attraction of the potential for significant long-range profits. At times, however, government itself has undertaken the effort particularly where there were important public services to be provided. Municipal transportation systems, power plants and water companies are examples of this. Government grants or financing have reduced the risk to private enterprise so that it would undertake the effort, such as with railroads or low income housing producers as well as recent efforts on behalf of Lockheed Aircraft.

The Committee suggests no action be taken until adequate information on the realistic potential for cable in Detroit is available, in view of these risks. Further, the Committee suggests that a new approach should be taken to finance and develop services which function for public rather than private purposes. We anticipate that private enteprise is not as likely to attempt to develop cable in Detroit unless there is a substantial likelihood of profit. Commentators have advanced the theory that at such time as profits seem probable the rationale for involvement of the private sector has disappeared. If substantial profits are possible, in services of a public utility, why should the public not construct the system and use revenues in excess of costs to improve the system? There would still be a role for private enterprise in operating the system, as will be discussed later.

There are also some significant advantages to public development of the system principally related to the current tax laws. Private borrowing is more expensive than that available to a public authority which can take advantage of lower interest costs since returns on public bonds are exempt from taxes.

Also of primary significance, is the Committee's concern over the conflict between the legitimate needs for profit for private enterprise and the public service nature of the system. Where there are significant public services involved, however, the Committee was concerned that the need for profit would jeopardize the level of services which would be forthcoming from a cable system. The ability to plow back excess revenues for improved technology and services would also be increased with public or non-profit development and operation.[8] This method of development prevents the franchise from being used for speculative purposes — by vesting the franchise in a public entity — increase in value belong to the public.

If a combination of public development and private operation is found desirable, public financing will enable private firms that do not necessarily have large amounts of investment capital to participate.

A further criterion for selecting the public form is that it is the mode which promotes maximum system quality. This ownership form should not only provide the best immediate services, but also produce a system capable of providing future services such as two-way communication and activation of additional channels. The system's structure should be one that will incorporate technological advances as they occur.

Finally, the ownership form should insure the lowest rate to subscribers consistent with quality services. Low rates will increase the number of subscribers and enhance development of the cable system as a communications medium.

Analysis of the foregoing factors led the Committee to conclude that, for Detroit, the most appropriate method of development is a public body rather than a private franchisee. The various alternatives for public ownership follow.

3. PUBLIC OWNERSHIP ALTERNATIVES

A decision that a cable television system in Detroit ought to be publicly developed leads to a consideration of various alternatives. In general, these are: (1) direct municipal ownership; (2) development by a special public authority; and (3) development by a non-profit corporation qualifying for tax-exempt bonding status. Each form has characteristics which must be considered in determining its attractiveness for purposes of financing, constructing, or operating a cable television system. This section will discuss these characteristics and the reasons for the Committee's recommendation that Detroit's cable system be developed by a special public authority. The necessity for new state legislation for several alternatives, will also be discussed.

a. MUNICIPAL OWNERSHIP

Municipal ownership means by the City proper as a department of City government. Examples are the Department of Street Railways and the Municipal Parking Authority.

A later section of this report (Section VIII, REGULATION), concludes that the City has the power under the Charter, Home Rule Act and the Michigan Constitution to own and operate a cable television system. In essence, the City was found to have broad powers relating to "municipal concerns" and cable was found a proper municipal concern because of its public service aspects and natural monopoly characteristics. This, however, does not answer the question of whether or not the City has the powers and capacity to **finance** construction of a system.

The Michigan Constitution, article V, section 21 empowers the Legislature to restrict the powers of cities to borrow money and contract debts. The Legislature, in turn, has provided in the Home Rule and Revenue Bond Acts for certain forms of borrowing and related restrictions.

Section 4a of the Home Rule Act permits a city to provide in its charter "for the borrowing of money on the credit of the city and issuing bonds therefor, for any purpose within the scope of its powers." Title VI, chapter 5, sections 1 and 2 of the Charter seem to embrace this broad grant of powers by providing that the Common Council may issue bonds secured by the faith and credit of the City for the purpose of financing "public improvements," "public utilities of the city as it is or may be authorized by law to own and operate," and "for all other lawful purposes." General obligation bonds, secured by the City's pledge of its taxing powers, are, however, subject to certain important restrictions.

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[8] The Ford Foundation supported the idea of nonprofit ownership in comments submitted to the FCC in December 1970 on the FCC's proposed rule-making for cable television:

> A significant number of nonprofit systems operating throughout the country would provide a bench mark against which to measure commercial systems, much as TVA has provided a bench mark in its industry. We do not minimize the profit incentive as a vehicle for creative application of technology, but we assume that diversity of ownership will increase competition and that this in turn will nourish the development of CATV.
>
> The basic difference between nonprofit and commercial franchises is that the nonprofit franchises will not be required to return a profit to stockholders. Revenues in excess of operating expenses, amortization, and interest can be funnelled into additional community programs and services. Free of the commercial imperative to invest in services that provide the quickest return on capital, the nonprofit owner should be more willing to experiment with new technology, to provide services of untested or marginal profitability, and to serve low-income areas where potential subscriber interest may be less certain.

First, the Home Rule Act, section 5e, as amended, generally prohibits an issue of general obligation bonds "unless approved by a majority of the electors voting thereon at any general or special election." Second, pursuant to sections 4a and 35a of the Act, the Charter, title VI, chapter 5, section 2, limits bonded indebtedness to nine percent of state equalized assessed valuation. In theory, this presents no problem in that, even considering bonds approved but not issued, the City is still approximately $180 million under its debt limit. Third, the Municipal Finance Act, section 7, prohibits a general obligation bond issue without approval of the Michigan Municipal Finance Commission.

An issue of general obligation bonds is not, of course, rendered impossible by the foregoing restrictions. However, these and other factors make it an unrealistic alternative. Securing voter approval of a pledge of the City's taxing powers to finance a cable television system at this point in the City's history is unlikely at best. And given the City's fiscal plight, the Municipal Finance Commission could be expected to look unfavorably at any such proposal.

The Revenue Bond Act empowers public corporations to finance "public improvements" through issues of bonds secured only by a pledge of the revenues derived from operation of the "public improvement." Such issues do not require voter approval, but are subject to initiatory referenda; and while the debt limit provisions of the Home Rule Act do not apply, approval by the Municipal Finance Commission is required. The Revenue Bond Act, however, permits bond issues only for "public improvements" — a defined term under the Act which seems not to include a cable television system. Thus, the Act would have to be amended before the City of Detroit could issue revenue bonds to finance a cable system.

Revenue bonding is probably the most realistic alternative for direct municipal financing of a cable television system, the need for State legislation notwithstanding. However, it should be noted that both Municipal Finance Commission approval and saleability of the bonds will depend largely on a demonstrated probability that revenues from the system will be sufficient to pay the principal and interest on the bonds. And should the City attempt to make the bonds more attractive by effectively backing up the issue with a pledge of its taxing powers through a lease arrangement, the Commission could be expected to consider the impact on the City's fiscal integrity.

Before discussing other aspects of direct municipal ownership one further financing caution should be sounded. In the early and middle sixties, local governments and states became engaged in heavy competition to attract industrial development. A common device was for states to empower local governments to finance industrial facilities through issues of tax-exempt "industrial development bonds." These facilities would, in turn, be leased to private parties or corporations. Because the net effect was a federal subsidy encouraging industrial relocation, Congress in 1968 revised the Internal Revenue Code to limit the practice. The substance of the restriction is that tax exempt status is denied to bonds where "a major portion of the proceeds" are used in a trade or business and repayment is secured either by property acquired with the proceeds or by rentals for its use. This restriction does not apply, however, where the user of the proceeds is a tax-exempt municipality or charitable organization, where the proceeds are used for certain specified purposes (does not include construction of a cable television system) or where the total amount of the issue is less than $5 million. The lesson here for municipal financing of a cable television system is simply that a bond issue could lose its tax-exempt status if the system, when built, was to be leased to a private operator. Indeed, the tax-exempt status could be jeopardized where even a part of a system was to be leased, if that part could be attributed to a "major portion of the proceeds" of the bond issue.

Although it is not totally clear how a specific grant of authority for programming education, municipal, community, and public access channels would be treated, it would not seem to be within the scope of the restriction since operators for these channels would not be "private."

As noted above, direct municipal ownership of a cable system would mean that the system would be developed and operate as a department of City government. Under such an arrangement, most major and some not-so-major decision-making would be subject to review by the Common Council through its responsibility for approving budgets and contracts. Moreover, the system would come under Civil Service, necessitating the development and approval of new job classifications and hiring through Civil Service procedures. Finally, decisions as to revenues in excess of those earmarked to meet bond requirements would be made by the Council; to this extent, the demand for lower subscriber rates or system improvements might have to compete with the City's other needs for revenues.

b. SPECIAL PUBLIC AUTHORITY

A public authority might be described as a quasi-governmental entity engaged in an entrepreneurial activity. Such authorities differ from municipalities in several respects. First, they are usually created to perform a single, entrepreneurial function while municipalities have many, diverse responsibilities. Second, an authority typically must finance its capital programs through bond sales — at least initially — and must rely on charges for its services to meet operating costs and debt repayment. That is, authorities usually have no tax levying power. Third, authorities are free of budget and personnel restraints generally imposed on municipalities. And finally, authorities are relatively far removed from the normal political process and independent of the general purpose governmental entities which create them.

As with direct municipal ownership, a later part of this report (Section VIII, REGULATION) gives detailed consideration to the City of Detroit's powers to create a special public authority to finance, construct and operate a cable television system. There, it is noted that the City presently lacks such powers and that new state enabling legislation would be necessary. However, there is ample legislative precedent in that a 1948 Act empowers cities and other levels of government to individually or jointly charter authorities for purposes of financing, owning and operating buildings and parking facilities for the use of the incorporating entity.

Authorities chartered under the 1948 Act are empowered to issue bonds under the Revenue Bond Act, and enabling legislation with respect to cable television systems would logically take the same tack. Thus, the limitations on the use of revenue bonds discussed above for direct municipal ownership would be applicable here. However, it may be well to underscore one point. Any effort to effectively secure a bond issue by indirectly pledging a municipality's taxing powers, such as by a lease arrangement, will make Municipal Finance Commission approval dependent, in part, on the lessee municipality's fiscal integrity.

The special public authority envisioned here would operate largely independent of City government. The Common Council would intially adopt articles of incorporation defining the powers of the authority and the form of cable service to be provided. Under this Report's recommendations, the Council would retain powers only to approve the Mayor's appointments to the authority, set subscriber rates and annually review system operations. The Council would, however, have powers to amend the authority's charter so long as bond obligations were not thereby impaired. An independent authority would thus adopt its own budget, decide on its own priorities and its contracts would be subject to no further review. Moreover, its employees would not be subject to the City's Civil Service system.

c. NON-PROFIT CORPORATION

Ownership by a non-profit corporation is a "public" alternative for development primarily because of Internal Revenue Service Rulings to the effect that non-profit corporations may, in certain circumstances, issue tax-exempt bonds. Under these rulings, the bonds are said to be issued "on behalf of" a political subdivision of a state. The requirements for tax-exempt status, set forth in Revenue Ruling 63-20, are:

(1) the corporation must engage in activities which are essentially public in nature;

(2) the corporation must be one which is not organized for profit (except to the extent of retiring indebtedness);

(3) the corporate income must not inure to any private person;

(4) the state or a political subdivision thereof must have a beneficial interest in the corporation while the indebtedness remains outstanding and it must obtain full legal title to the property of the corporation with respect to which the indebtedness was incurred upon the retirement of such indebtedness; and

(5) the corporation must have been approved by the state or a political subdivision thereof,

either of which must also have approved the specific obligations issued by the corporation.

The first requirement is met when the non-profit corporation engages in something which the City itself would have powers to undertake. And since the conclusion has been reached elsewhere that the City has the power to develop and operate a cable television system, this requirement could be satisfied.

The second and third requirements would presumably be met by qualifying under State law for a non-profit corporation charter. This would require that no gains, profits or dividends be distributed to any members of the corporation and that no part of the corporation's net earnings, funds or assets inure to the benefit of any party except the City. The use of excess revenues for improvements to the system would probably be permissible so long as the City's rights in the improvements were the same as those in property acquired with proceeds of the orginal bond issue.

The part of the fourth requirement relating to beneficial interest can apparently be satisfied in several ways. For example, the City might be given the right to purchase the cable system at any time for an amount equal to the indebtedness then outstanding. Or all shares of the corporation's capital stock or its membership certificates might be held in trust for the City. The requirement that the City obtain title to the property upon retirement of the indebtedness can be satisfied by terms in the articles of incorporation and/or trust instrument to this effect.

The final requirement, relating to City approval, can be met by Common Council resolution approving the articles of incorporation and agreeing to accept all property rights which the corporation proposes to bestow on the City.

The non-profit corporation would operate something like a public authority and somewhat like a private franchise. The City could, by the articles of incorporation, be given powers to appoint the directors of the corporation. And presumably the articles of incorporation could be structured very much like the charter of a public authority. However, such a course would appear to raise questions of the legality of the City creating a public authority under another name. Thus, the better course would probably be to franchise the corporation and create a separate City regulatory agency as recommended elsewhere in this report (Section VIII, REGULATION). The corporation would then operate independent of the City, but services would be governed by the terms of the franchise. However, franchise terms, including rates, would be subject to renegotiation between the corporation and the City regulatory agency. And should the corporation propose to issue new bonds to finance improvements, tax-exempt status would depend on City approval.

Although there is some local precedent (the Detroit Harbor Terminal) for the form of non-profit corporation financing and development discussed herein, it may no longer be an available alternative in Michigan. Informal discussions with the Municipal Finance Section of the Michigan Attorney General's Office indicate that State approval of a non-profit corporation charter may not be forthcoming where arrangements permitting tax-exempt bonding are proposed. While the Attorney General's Office's objections were not altogether clear, they seemed to hinge on the contention that such a form of financing circumvents State laws relating to municipal finance. In any event, the City should resolve this question before this option is chosen.

d. RECOMMENDED ALTERNATIVE: SPECIAL PUBLIC AUTHORITY

The Committee's choice of the special public authority model reflects many of the arguments most often advanced for creating authorities. These, generally speaking, fall into four categories: financial, managerial, control and "non-political character."

Many of the usual financial reasons are inapplicable in Michigan since municipalities may issue revenue bonds on saleable terms and statutory debt limits do not apply to bonds repayable solely with revenues from projects financed with the proceeds. However, one reason is particularly applicable: An authority whose financing powers are limited to issuing revenue bonds must always strike a balance between services provided and revenues which those services will generate; without this balance, the authority will be unable to market its bonds. This means that the authority's services will not be subsidized out of general tax revenues.

The managerial reasons advanced for authorities have several aspects. First, the separation of responsibility for a single entrepreneurial function from that for government generally is said to free authorities to make quicker, more imaginative, more businesslike decisions. Second, reliance on revenue bonds for financing necessitates a favorable balance sheet which provides an incentive for efficiency. Third, authorities historically have had greater continuity of management than governmental agencies. Fourth, the relative insulation of authorities from political control is said to make for more far-sighted decisions. Finally, it is claimed that authorities attract higher quality managerial and technical personnel who would be reluctant to submit to Civil Service System requirements.

The "control" and "non-political character" reasons advanced for authorities are closely related. Control is said to be inherent because of the authority's need for fiscal soundness to support bond sales, while the authority's non-political character is said to make for more objective decision-making. However, authorities often, as would be the case for cable television, operate as a monopoly. Thus, this inherent control is no guarantee of efficiency. Moreover, this Report recommends that the authority be required to furnish a number of non-revenue generating services. Therefore, certain additional controls, both non-political and political must be provided.

The non-political forms of control are exercised via the authority's City-enacted charter which defines the services to be provided must as a franchise would do; the City would also reserve the power to set subscriber fees. The political control would be provided by the Mayor's power to appoint, with Common Council's advice and consent, the members of the authority. Use of staggered rather than concurrent terms would tend to balance independence and responsiveness to public opinion. This seems a necessary measure to guard against what has been termed — for some authorities — a tendency "towards bureaucratic over-commitment to [their] particular programs accompanied by relative obliviousness to competing public and private interests."

To summarize, the Committee's recommendation — that a cable television system in Detroit be developed by a special public authority — seeks to balance the need for inherent fiscal controls and efficiency with a certain measure of responsiveness to the electorate in order to best provide a full range of urban telecommunications services.

REOMMENDATION:

4. THAT CONSTRUCTION OF THE CABLE SYSTEM BE COMPLETED WITHIN FIVE YEARS OF THE DATE OF GRANT OF AUTHORITY.

Franchises have been obtained for cable systems in a number of instances where no system has yet been constructed. The franchisee simply obtained the right to construct a system when it seemed profitable to him. When and if another cable firm wishes to buy his franchise rights his franchise will have turned a profit without any cable having been installed. This situation has occurred in a number of municipalities, where the city failed to impose requirements for a timely construction schedule or else failed to provide sanctions necessary to enforce such provisions.

The Committee feels that the franchise or other grant of authority for development of cable should not be given unless the Council is satisfied that construction of the entire system can reasonably be completed within five years from the date of such grant. The FCC will leave the construction timetable to local authorities, but suggests a rate of 20 percent per year, beginning one year after federal approval.

Although the Detroit system would be one of the largest constructed, such a timetable is not unrealistic. Installation can and should proceed in a number of sections of the City at the same time. Rapid extension of feeder lines throughout the City is to the advantage of all. The Committee also suggests that appropriate performance bonds be required to assure conformance with this provision.

From an economic standpoint the short construction period is both feasible and necessary, assuming appropriate financing, to assure that the system quickly reaches its potential.

RECOMMENDATION:

5. THAT CONSTRUCTION OF THE CABLE SYSTEM BE PERFORMED IN SUCH A WAY THAT ALL AREAS OF THE CITY WILL BE PROVIDED SERVICES EQUALLY, ON A PHASED CONSTRUCTION SCHEDULE, WITH NO AREA FAVORED OVER ANOTHER.

There has been some tendency with development of cable systems in the past for the developer to start construction in areas with higher density of potential subscribers or those with higher incomes. Often this occurs because of insufficient financing. Many systems tend to take a small area in the City and build up from that point as they obtain additional financing. The Committee is concerned about the inequities suffered by those living in areas not selected as an initial development area. It is also a concern of the Committee that those "passed over" in early stages of consruction may be poorer neighborhoods unless the City requires otherwise. What the Committee is recommending is that an overall plan for provision of service be developed. It should be on a phased basis to insure that the construction will progress evenly and be designed so that various areas will not be discriminated against in terms of timely access to service.

Headend facilities and satellite origination points will be constructed and connected by trunk lines. These headends and origination points can provide the focus for each area in which construction of feeder lines is started. The Committee is not recommending a hard and fast design, only that the Council impose an appropriate plan which does not discriminate in favor of one area of the City over another. It should also be noted that the FCC's new rules for cable television will require that local authorities insure that service is extended equitably and reasonably to all parts of the community.

III. ORGANIZATION FOR THE OPERATION OF THE SYSTEM

RECOMMENDATION:

1. THAT CITY-WIDE MANAGEMENT AND OPERATIONS, AND DECENTRALIZED CONTROL OF ACCESS AND PROGRAMMING, ARE NOT MUTUALLY EXCLUSIVE CONCEPTS IN STRUCTURING A CABLE SYSTEM. THEREFORE, CERTAIN SYSTEM FUNCTIONS MAY BE ESTABLISHED ON A CENTRALIZED BASIS WHILE OTHERS MAY BE ESTABLISHED ON A DECENTRALIZED BASIS.

Previously the Committee set forth its recommendations concerning the construction and initial development of the cable system. It specifically viewed the system as having the potential for division into distribution responsibilities and programming responsibilities. This meant that a single entity (a public body is recommended) should be responsible for the construction of the system. The Committee then considered what kind and how many organizations should be involved in management and operation of the system as well as for its programming.

A number of issues were considered: (1) what type of entity might provide the most appropriate and effective administration of a system; (2) whether there should be one or several systems and systems operators; (3) how to minimize the potential for abuse of control of access to the system as well as the potential for ideological control of program content; (4) how to enhance the public services the system can provide; (5) how to provide opportunities for local, and particularly minority firms, to play a major role and economically benefit from the cable system; (6) how to assure community access to programming on the system as well as increase opportunities for public and educational programming; and (7) what type of entity would be sensitive to the interest of all citizens.

These considerations resolved themselves to an analysis of two basic points. One, centralized versus decentralized control and two, public or non - profit administration versus private administration.

The Committee was guided primarily by the judgment that the system operator's administrative responsibility and the programming responsibility could be separated without endangering or diminishing the feasibility of the system. The only qualification was whether the novelty of such a separation would create problems for issuance of bonds. Presumably, however, any concern about the ability of the programming to attract subscribers should be overcome if the programming on the commercial channels was sufficiently appealing. The effect of allowing the additional organizations and individuals to program the remainder of the channels should be a positive factor in attracting subscribers: diversified programming appealing to many different persons should occur; this would be their primary concern; and, their involvement makes them salesmen for the system.

The Committee attempted to determine the best way to safeguard against placing the control of communication functions in one organization's hands. At the same time consideration was given to assuring the most efficient and economical way to provide the services which a cable system makes possible. The distribution-programming division of responsibilities provides an opportunity to accomplish both of these purposes. Programming responsibility divided among different organizations seemed to us to assure the optimal protections for diversified and independent programming. Moreover, operation of the distribution system was the only instance in which the required efficiency indicated the need to provide system-wide responsibilities.

The questions raised here were considered in the making of recommendations which follow. The Committee does not claim to have developed the perfect model but it has considered the possibilities without being bound by the preconceptions of others. New ground is being broken and critical issues of freedom of information are at stake. The approaches indicated are what seem to be the best alternatives to bring about the kind of system needed for the City of Detroit.

CENTRALIZED FUNCTIONS

RECOMMENDATION:

2. THAT A SPECIAL PUBLIC AUTHORITY, OR NON-PROFIT CORPORATION, CREATED FOR CONSTRUCTION OF THE SYSTEM (RECOMMENDATION 2 UNDER FINANCING AND CONSTRUCTION AND CHARTS A AND B), BE RESPONSIBLE FOR OPERATION AND MANAGEMENT OF THE CABLE SYSTEM; AND THAT THE DIRECTORS (NOT LESS THAN 9 MEMBERS) BE APPOINTED BY THE MAYOR WITH ADVICE AND CONSENT OF THE COMMON COUNCIL, THAT SUCH DIRECTORS BE RESIDENTS OF THE CITY OF DETROIT, AND REFLECT THE MINORITY GROUP COMPOSITION OF THE POPULATION OF THE CITY OF DETROIT.

a. CONSIDERATIONS RELEVANT TO PUBLIC OPERATION

Previously, this Report has discussed the Committe's recommendation that the cable system be constructed by a special public authority or nonprofit corporation. That determination was, in part, based upon a view of the cable system which permitted division of responsibilities in the system between distribution (hardware) and programming (software) activities. The Committee believes a public entity would be most appropriate for construction purposes. It was then necessary to decide who should operate and manage the cable system after the initial development phase.

There are a number of possible organizational arrangements for handling the responsibility for operation and management of the cable system. Essentially, there are two issues: public or private; single and multiple. For each alternative there are a number of factors that can be considered. These include:

- sensitivity to the interests of all citizens;
- effective management and administration;
- maximum incentive for creating and maintaining the highest level of services to the City and its residents;
- the public utility nature of the services performed;
- ability to financially withstand initial periods of low revenues; and
- responsiveness to public concerns.

The considerations between a public or a private system operator are discussed below. The issue of single versus multiple operators is dealt with in the discussion under the next recommendation.

Sensitivity to the Interests of All Citizens

The question is whether a publicly appointed board or private entrepreneur would be most anxious to provide attractive and diversified programming, maximize public services and attract subscribers. There is little to recommend a private operator based on the performance of existing over-the-air broadcast stations. Few would quarrel with the fact that maximizing the profit of the networks or individual stations has led the industry to cater to the majority; rarely has it been sensitive to the concerns of special interest groups. Whether that situation would change with the availability of more channels is unclear but doubtful. The performance of the private cable industry in local programming also gives little comfort. Almost no systems provide or support such activities.

As previously noted there is no system in existence with the high capacity called for here (however, many are or will be planning to implement systems of that capacity). We believe that a system operator who is supportive of diverse programming activities and who is devoted to the interests of the City is far more likely to assure the requisite responsiveness to the variety of interests of Detroit. And we believe a public body is more likely than a private owner to be directed by local persons or concerned about the locality.

Effective Management and Administration

Effective management and administration is primarily a question of the caliber of individuals who will be brought to manage the system and the concerns and interests of the organization's directors. The Committee has recommended that Detroit residency and ethnic diversity be characteristic of the public entity directors. Such arrangements could also be implemented by private management, but, in most cities this has not been the case. At best "front" organizers, set up as a subsidiary of a major corporation have been presented — as the Mayor of Milwaukee indicated — as local window dressing. If a public entity is free either through management contract or independent hiring to obtain staff capabilities (without Civil Service limitations) its management and administrative capabilities should be equivalent to that of any private concern.

There is little expertise in operating a system of the size contemplated here. Admittedly, certain systems have developed some of the services and functions that the system proposed for Detroit should provide, but few have really provided local origination or implemented a high capacity system. Thus, there is no significant advantage for an existing firm based on experience. Personnel with applicable experience, of course, can be hired regardless of who operates the system.

Maximum Incentive for Creating and Maintaining the Highest Level of Services for the City and Its Residents

In the Committee's view, it is unrealistic to expect a private entrepreneur to be willing to defer profits and immediately implement the variety of services recommended. A public entity having long-term public financing can do so, without experiencing the same pressures to return some profits at the early stages. The questions will be: Would a private entrepreneur be likely to purchase and maintain studio equipment for the use of community programming? What willingness would there be to turn over portions of gross revenues, say 2 to 5%, to help defray direct expenses incurred for these programs? If the cable is operated on a non-profit basis, it is clear that there is more assurance of available funds to provide greater services, funds that would otherwise be diverted to the private entrepreneur. Past experience cannot provide any other lesson than that cable operators, as with other business, will operate primarily in their own economic self-interest. This legitimate need to develop profits for stockholders will generally overcome the public spiritedness of the firm. When this need to pay dividends conflicts with socially beneficial uses of the system the latter will suffer.

The Public Utility Nature of the Services Performed

The public service nature of the cable system envisioned by the Committee indicates it should be considered as if it were a "public utility." Once the system is broader than a particular station or provides services beyond simply carrying existing or bringing in more distant over-the-air stations, the cable system tends to become a "public utility." At that point, public interest in provision of services is paramount to private rate of return. That's the clear lesson from all existing utilities. In some cases utilities have been owned by municipalities and in other cases, such as with the telephone, there has been a fairly consistent pattern of private ownership. Even in the case of private ownership, however, there has been a close regulation of rates of return and services rendered. Profit has been severely limited to "a fair return." The Committee did not wish to address itself to the question of whether or not cable systems should be considered public utilities **per se,** but only wished to raise the question in the context of its analysis of the advantages of a public or private entity for system operation and management. In the view of the Committee the nature of cable as a public utility tends to support the appropriateness of public ownership.

There has been considerable resistance to treatment of cable systems as a public utility by the owners of cable systems. In some cases the states have now moved to provide the necessary regulations. The argument of the owners is that they require high profit from their systems and that limited returns will prevent them from obtaining the necessary financing. To the extent that there are significant risks in undertaking major cable systems, the "private money" will be unavailable except at either high interest rates or only if an equity interest is given.

Actually, the issue is not particularly complex. If someone wishes to borrow money it will be loaned to him at an interest cost that reflects competition among money lenders as well as an assessment of the risk. The franchise will often be retained as security, providing for assignment of the system to the lender if the system operator goes bankrupt. The system operator must put more of his own capital into the investment than would be required under a public authority, which may essentially finance the entire cost. A private entrepreneur must provide enough money to handle initial operating expenses prior to receipt of revenues. To off-set the alternative uses that his own funds might be put to, the private system operator must anticipate significant profits at some future stage to justify his investment. Thus, it can be seen that the realities of the money market will dictate a private entrepreneur's need to obtain substantial returns to off-set the risk he has taken. In the case of a public authority or non-profit corporation, however, all that is required is simply to break even.

As related to the public utility nature of the cable system, the financial analysis means that either initially or within a short time there are probable limitations on the kind of profits that can be realized from a cable system. Also, where it is a publicly controlled activity, there is more reason to look to a public operator instead of a private entrepreneur.

Ability to Financially Withstand Initial Periods of Low Revenues

The operator must be financially able to defer profits, to have the ability to withstand unanticipated low revenues or the limited revenues that will be encountered during the early stages of the development of the system. Subscriptions to the system will not be instantaneous and there is a start-up period. Funds will be required to pay expenses for system operation during such a period. In fact, it seems almost unfair to ask a private entrepreneur to defer profits and in addition provide high service during such periods. Simply stated, it will not be possible for an entity to do both unless it is able to obtain extremely long-term financing.

Responsiveness to Public Concerns

A major consideration of the Committee was the caliber and quality of the programming which might be provided on the cable. Programming on commercial channels would be the responsibility of the entity providing management for operations. Existing privately owned city-wide systems, although most are small in number of subscribers, have done little from a service standpoint but relay over-the-air signals. There is almost no local origination experience. From this standpoint there is little to suggest the superiority of the private entrepreneur over the public. The BBC and the CBC represent the potential of higher quality standards of programming which might come from public entities. While the necessity for the private entrepreneur to obtain profits from his operation of the system is relatively clear, a special public authority or non-profit corporation would have far greater freedom to use revenues to improve services and programming.

Although much is said of freedom of the press and news media and conversely the potential for abuse when information is provided by the government itself, the detached public role of a special public authority or non-profit corporation seems to provide adequate safeguards against governmental abuses. A public authority would be freer of regulation, although no entity would be totally independent. Those appointed in the public interest and sensitive to the needs of the City of Detroit should provide this kind of impetus.

It is for that reason that a minimum of a nine-member board of directors is recommended by the Committee. The number gives adequate opportunity for representation of all segments of the community. Appointment by the Mayor subject to the advice and consent of the Common Council is seen as providing a check and balance procedure which insures safeguards for the freedom of the directors from out-right governmental control or total insensitivity to resident needs. Further, it is preferable that the directors should be residents of the City if they will truly be sensitive to the needs of persons who live within the City. Moreover, the Committee has recommended that the directors should adequately reflect the minority group composition of the residents of the City, for the same reason.

CHART A
SPECIAL PUBLIC AUTHORITY STRUCTURE

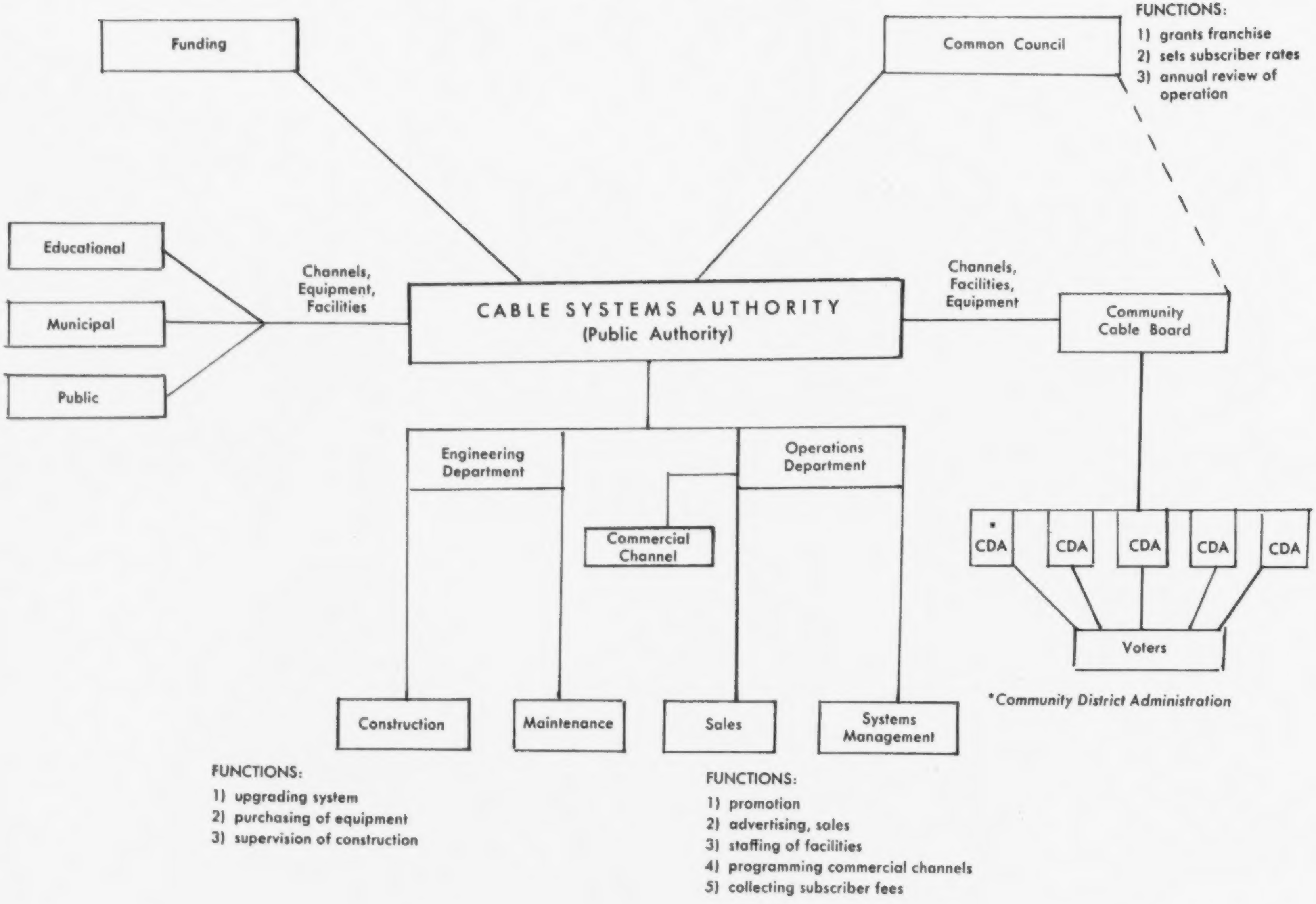
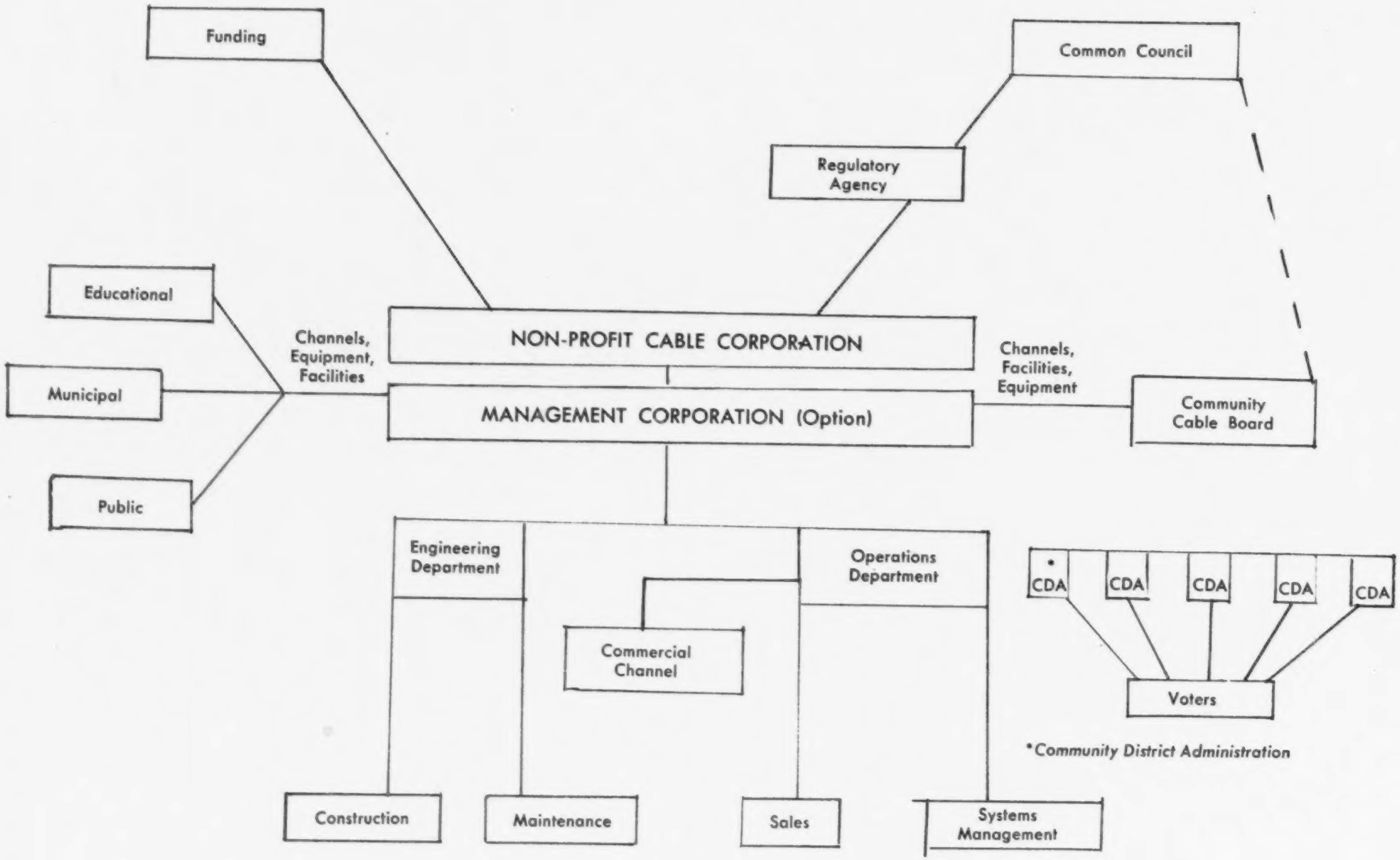

Funding
Common Council
FUNCTIONS:
1) grants franchise
2) sets subscriber rates
3) annual review of operation
Educational
Municipal
Public
Channels, Equipment, Facilities
CABLE SYSTEMS AUTHORITY
(Public Authority)
Channels, Facilities, Equipment
Community Cable Board
Engineering Department
Operations Department
Commercial Channel
*CDA
CDA
CDA
CDA
CDA
Voters
*Community District Administration
Construction
Maintenance
Sales
Systems Management
FUNCTIONS:
1) upgrading system
2) purchasing of equipment
3) supervision of construction
FUNCTIONS:
1) promotion
2) advertising, sales
3) staffing of facilities
4) programming commercial channels
5) collecting subscriber fees

CHART B

NON-PROFIT OR PRIVATE OWNERSHIP STRUCTURE


Funding
Common Council
Regulatory Agency
Educational
Municipal
Public
Channels, Equipment, Facilities
NON-PROFIT CABLE CORPORATION
MANAGEMENT CORPORATION (Option)
Channels, Facilities, Equipment
Community Cable Board
Engineering Department
Operations Department
Commercial Channel
*CDA
CDA
CDA
CDA
CDA
Voters
Construction
Maintenance
Sales
Systems Management

*Community District Administration

b. ORGANIZATION UNDER A PRIVATE FRANCHISE

The Committee has not formally recommended that there be consideration given to a private entrepreneur for responsibility either for the development or the operation and management of the system. The Committee is aware, however, that the engineering and financial projections will to a large degree determine the feasibility of public financing of the system. In the event that such projections should determine that public ownership is not feasible, the Committee wishes to set forth a suggested organization of the system if, in fact, there is a private franchisee.

In such a case, there should be a regulatory authority created, as in the case of a non-profit corporation (see Chart B). Moreover, the ordinance granting the franchise must be very specific with respect to a number of items, including: the term of the franchise, the specific public services to be provided, the restrictions on transfer or assignability of the franchise, the necessary performance bonds, the requirements for upgrading the system, the employment and training requirements, the protections necessary against invasion of privacy, the complaint procedures which should be available, the technical specifications, the conditions for repurchase by the City, the disclosure of financial records and the restrictions on additional, non-TV services without Council approval.

Several of these considerations deserve some specific attention. If a private entrepreneur is the franchisee, a performance schedule is critical to insure that the entrepreneur is not a speculator holding the franchise as an investment for quick resale. To prevent this, the ordinance should require a specific construction schedule and assess monetary penalties for failure to meet the schedule. Thus an energized trunk cable (onto which subscribers may be connected and on which there are transmissions) should be completed within one year. (See Section II.) This is consistent with the FCC rules which require "significant construction" within one year after the commission grants its "certificate of compliance." The FCC further suggests a 20% per year figure as its generally applicable standards for construction progress. If it is desired to implement the system more quickly, a 25% or 33% construction schedule could be imposed. This would certainly prevent any franchisee from simply sitting on the franchise and using it as a saleable investment within a short time.

Assignability of the franchise should also be limited. Assignability is necessary for the purpose of assuring that the franchisee can obtain a loan, since the franchise would in most cases be required as a form of security for major financing. However, there is nothing inappropriate in preventing transfer of the franchise except for purposes of a defaulted loan used in debt financing of the system.

With a private entrepreneur, there would be a stronger incentive for the City to require substantial franchise fees; in some areas these have run up to 6 or 7% of the gross, although the FCC has set a maximum of 5%, including lump sum payments. These have sometimes been the basis of a competitive bidding process. However, the Committee has elsewhere indicated the cable system should not be viewed as a municipal money maker. The cable does not offer much of a financial return to the City, nor should it be so viewed. What is required is sufficient funds to provide for its regulation and especially to monitor for continual upgrading of the technical capacity of the system so it can deliver better services to the citizens of Detroit.

The FCC has said that the ultimate effect of any revenue raising fee is to levy an indirect and regressive tax on cable subscribers. It has therefore required that if the cable fee is in excess of 3%, including all forms of considerations such as initial lump sum payments, the FCC shall only approve it where the franchising authority submits a showing of the appropriateness of the fee specified, particularly in the light of the planned local regulatory program.

It should be understood that franchise fees are essentially a tax on subscribers, since under most circumstances the operator will include such a fee in determining the subscriber rates. There is some limitation on this, in that subscribers may be expected to drop service if fees are raised too high. The question of rate making and those determinations by the Council will depend upon the knowledge the Council has of the exact profit and loss position of any potential cable operator. This means that the information must be available, and franchisee reports should be publicly filed. This also is another of the reasons why authoritative engineering and financial projections must be obtained for the City.

To assure implementation of the kinds of services called for in this Report and the upgrading of services as additional technological improvements occur, detail specifications of these service requirements are needed in the ordinance. So too there is need for appropriate enforcement provisions. The obligation to provide such services could be appropriately related to gross revenues so there would be greater assurance that revenues would not be siphoned off into less socially benecial uses. This seems to the Committee, more important than using cable to generate revenue for the City's general public purposes.

It is important that the City not be trapped into a scheme where rates and returns involve complicated rate setting procedures, as has often occurred with other public utilities. It is difficult to establish adequate criteria for assessing allowable costs (in computation of profits or regulated returns). Moreover, determination of what constitutes investment or operating expenses for purposes of establishing the rate base is equally difficult. Under such circumstances it is extremely hard to fairly determine what is a reasonable rate of return and extensive hearings and examinations often are required. The problem can best be exemplified by the recent FCC declaration that it is totally unable to determine the reasonableness or appropriateness of rates charged by AT&T because of the enormous expense and time involved in making a full and accurate examination of that issue.

The issue of what type of regulatory approach might be appropriate for the City of Detroit is also raised. Although the Committee is recommending a central regulatory body, it may be that the regulatory functions would best be transferred in the future to a statewide operation which had a larger staff and could develop the expertise necessary. On the other hand, there is strong resistance to using state public service commissions as currently constituted to regulate cable.

The specific provisions that can be included in a franchise ordinance are not self-executing and in many cases will involve the City in a dispute with the franchisee over the feasibility of doing things that are not in the operator's own economic self-interest. (These were some of the reasons that led the Committee to recommend that a public entity be responsible for these functions.) Thus, specific sanctions must be provided in a franchise which can be imposed if necessary.

To provide for some flexibility in dealing with a private entrepreneur, it is important that the franchise permit the City to buy out the system (perhaps upon some fair market value determined by an arbitration board without consideration of "good will"). If the entrepreneur had not performed effectively, of course, the City could exercise this option. It is more likely that revocation would occur if the franchisee were only the operator of the system and had not provided the financing, since his investment would be less.

As discussed under Section VIII, control of a private franchisee may be difficult unless extreme care is taken in drafting the franchise, since it cast as a contract defining the obligations of the franchisee. Hopefully, the projections which we have urged will reflect the feasibility of public ownership and the Committe's recommendations can be implemented. In the Committee's opinion this will provide for Detroit the most responsive cable system.

RECOMMENDATION:

3. THAT ALL SYSTEM OPERATIONS, EXCEPT FOR PROGRAMMING, BE HANDLED ON A SYSTEM-WIDE BASIS: THAT THE CITY NOT BE DIVIDED UP INTO FRANCHISE AREAS.

The appropriateness of a single operational service area for the Detroit system as contrasted to the City's division into a number of geographical areas led the Committee to review a number of factors. These included: (1) the diffculty of coordinating management of distinct areas for a cohesive system; (2) the feasibility of making divisions which were equitable in nature so that income, ethnicity, developmental costs, etc., were equalized; and (3) the relative merits of system-wide service contracts to perform certain functions versus independent service area operators — particularly from the standpoint of providing local business opportunities.

Arguments for Division by Areas

To properly consider these issues it is useful to review what it is that an area operator would do. Of course, construction responsibilities and financing for that purpose would be handled by the entity responsible for the distribution system. The other functions related to the programming on the system performed by an area operator are the same as those an over-all system operator would perform, except these activities would be limited to that particular service area. These activities would presumably include: maintenance, providing for technological improvements, solicitation of advertising, obtaining programming for the commercial channels, operating the commercial channels, developing local programming for the commercial channels and soliciting subscribers. The arrangement between an area operator and any entity which developed the system would probably be one of lease, contract or license. Fees would have to be set which would be sufficient to amortize the pro-rata share of development costs for that area. Profit incentives could be built in. However, area operators must have sufficient venture capital to meet operational costs in their area. Given these arrangements, then, how does area division compare to system-wide management?

Of the factors considered, by far the most persuasive is the difficulty anticipated in coordinating the operations of different area operators. The Committee felt that maintenance, technological improvements, subscriber solicitation, engineering responsibility for programming and such matters would be inefficient or ineffective if not under single direction; and, in the end would increase subscriber fees because of increased costs. Admittedly, some informal system of division of the city into service areas might be undertaken by the system operator for various purposes; however, responsibility and authority still would be centralized to insure necessary coordination.

Equitable division of the City into separate geographical areas to equalize economic factors such as subscriber and developmental conditions will be very difficult as previously discussed in the context of financing and construction (see Section II, Recommendation 1). Although some arbitrary divisions could be developed, some of the area operators would have more difficult districts to handle. This issue, moreover, involves fairness for subscribers as well as operators.

The most appealing of the arguments for separate service areas relates to providing entrepreneurial opportunities to local firms. For example, giving a firm the responsibility for producing commercial programming on its portion of the system is somewhat like leasing it a TV station or channel of its own. This raises several difficult problems, however.

The role of the system operator is entrepreneurial, but limited in the sense that he would program the commercial channels, provide certain services such as maintenance and proper operation of the distribution system, and collect subscriber fees. If the City is divided into service areas, each should have a channel to program commercially, since this is the primary opportunity for profit to meet his lease fees which must be paid to the entity which has financed and constructed the system. With five service areas, for example, five of the system's channels would have to be made available for commercial programming, one each to the area operators. Admittedly, there could be a time-sharing arrangement, but this means that identification of the operator by his channel would be lost. Other uses for those channels would be precluded. There is no other arrangement possible if the system is to require total interconnection of channels. There is an alternative to separate areas, however, which may be even more appropriate for involvement of local private firms.

System-wide Operations

If the system operator were to contract out certain functions on a system-wide basis, there would be no need to set up separate operational or service areas. It would still be possible, for instance, for an entrepreneur to lease the operation of one of the commercial channels and perform all of the relevant programming functions for that channel. Also, there could be a contract for over-all system maintenance, advertising, etc. In the Committee's opinion, this was preferable to attempting to equitably divide the City into districts and avoided the fractionalizing that would inevitably result from that course of action. In terms of economic opportunities for local firms, functional division would reduce the need to invest significant capital resources to finance operations in a service area, thereby making entry into this market far easier for minority firms. Thus, requiring that the system operator contract out these functions, rather than performing them himself, opens the door to a number of entrepreneurial firms.

There is, moreover, another distinct advantage. Division into service areas would create significant risks for firms undertaking such a responsibility during the early stages of development of cable in this City — at least until numbers of subscribers were sufficient to provide a constant source of operating capital. If subscription were lagging in one area, which could happen because of the conditions in that area (and which might not be the fault of that operator) there could be significant drain on the capital of that area operator. Few small firms would be likely to have the capital assets to survive during a period of such adversity. Equally important, subscribers in that area would suffer disproportionately to those in other areas.

Finally, loss of one segment of income could affect the financial feasibility of the whole system. One of the major advantages to a comprehensive city-wide operation is that good and bad subscriber areas would even out over the whole City, making for a firmer economic base.

RECOMMENDATION:

4. THAT SYSTEM-WIDE FUNCTIONS OTHER THAN PROGRAMMING, E.G., PROMOTION, MAINTENANCE, ADVERTISING, SALES, COLLECTION OF SUBSCRIBER FEES, SYSTEM MANAGEMENT, BE THE RESPONSIBILITY OF THE SPECIAL PUBLIC AUTHORITY, AND THAT ANY PERSONS EMPLOYED FOR THESE PURPOSES BE RESIDENTS OF DETROIT. (See Section X EMPLOYMENT.)

These are functions which, in the Committee's opinion, should be handled on a centralized basis for the sake of economy and efficiency. Otherwise, unnecessary duplication of activities and personnel can be expected. In many cases such functions are interdependent and need central direction. Each of these functions applies to the entire system. On the other hand, it is not necessary that the same organization perform all of these system-wide, centralized functions. It would be appropriate to contract or subcontract particular functions. There was a strong desire on the part of the Committee, however, that regardless of who performed such functions, that the persons employed be residents of Detroit.

As a communications medium of primary benefit to the citizens of Detroit it was felt to be critical that those with operative responsibilities be residents of the City. To those who might suggest that some skills might be lacking in those presently in the City, the Committee would respond that the necessary individuals can take up residence in the City. But, there is much talent here and the need for such persons to relocate would be rare. Although the cable system is not capable of solving society's ills it can provide a major unifying and cohesive force for the City. It is important, therefore, that those who are operating it, and are engaged in its administration and activities, have a strong commitment to the City. That, it is felt, can be best provided by those who live here.

RECOMMENDATION:

5. THAT THE SPECIAL PUBLIC AUTHORITY DETERMINE THE MOST APPROPRIATE MANAGEMENT STRUCTURE FOR ITS OPERATIONS. IT COULD PERFORM MANAGEMENT FUNCTIONS ITSELF OR CONTRACT OUT TO A MANAGEMENT CORPORATION.

The analysis of the most appropriate management structure for the operations of the cable system should reflect the alternative opportunities available. Thus, a special public authority could solely concern itself with the construction and development of the system and contract out the continuing management functions itself, by hiring its own staff. If such management functions were contracted out to another organization, an excellent opportunity is provided for local, and particularly minority, firms to participate in operation of the system without large amounts of investment capital. It should be remembered that in the decentralized structure recommended below, most of the programming on the system (i.e., all but a few commercial channels) will be handled by the community, educational, municipal, and public access structures to be created. Thus, from a functional standpoint, management responsibilities for the special public authority (or other system operator) would include: maintenance; technological improvements, solicitation of advertising; obtaining programming for the commercial channels; operating the commercial channels; developing local programming for the commercial channels; and soliciting subscribers for the system.

RECOMMENDATION:

6. THAT APPROPRIATE ORGANIZATIONS BE CREATED FOR ADMINISTRATION AND OPERATION OF (1) MUNICIPAL, (2) EDUCATIONAL, AND (3) PUBLIC ACCESS CHANNELS.

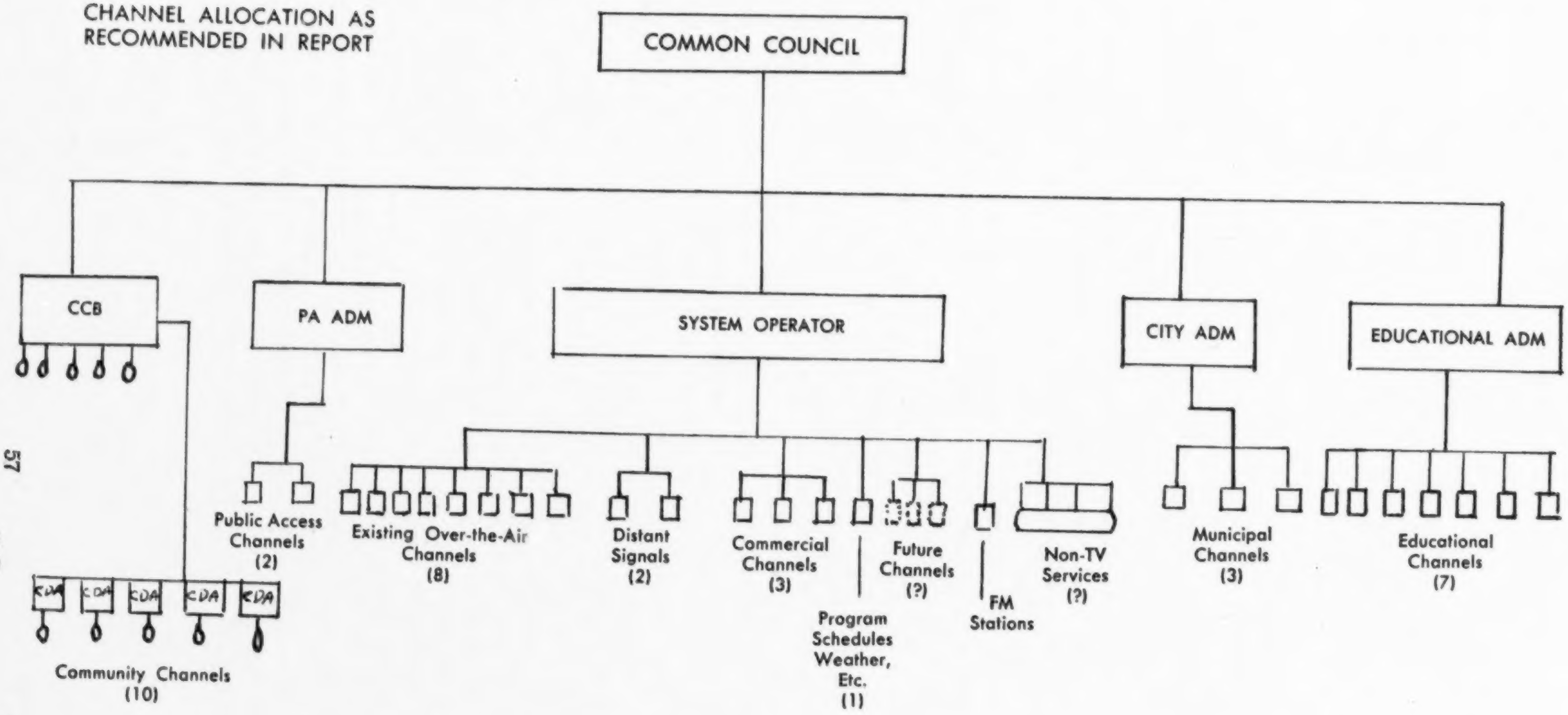
The Committee feels strongly that responsibility for programming, administration and operation of municipal, community, educational and public access channels should be separated from that of the system's operation. This creates the most effective means to decentralize programming and therefore control of program content. Further, such separation creates incentives for the local programming which should be an essential part of the system. The Committee did not feel it appropriate to try to predict the exact structure for carrying on these functions for the municipal, educational and public access channels. Because there are not existing organizations to look to, the organizational structure for the community channels is set forth in the following recommendations. For the others there are a number of options available. The municipal channels could be administered and operated by an existing or newly created department within the City government reporting to the mayor or the responsibility could be contracted out. The educational programming could be handled by a consortium of higher educational institutions and public and parochial schools or could be divided into two systems, one dealing with higher education and one with elementary and secondary education; alternatively, one educational institution or system could be given major responsibility for administration of the system or a separate body could be created for these purposes. The Committee felt that the questions were more appropriately left to the discretion of those more immediately involved.

The public access channel, providing essentially open access to individuals and groups on a citywide basis has minimal directional responsibilities. Perhaps the system operator itself could handle the administrative duties. Another possibility would be to give this administrative responsibilty to the institution which would provide training for those who would operate equipment and create programming on this and perhaps the other public function channels.

The Committee's primary concern is that there be independent organizations for the administration and operation for these channels (with the possible exception of the Public Access channels) to assure that control of access be kept with bodies which are independent of the system operator. This decentralization and independence for the "gate keeper" function, which has power over access to the system, is a very critical element in the Committee's proposal for separation of programming functions from distribution.

DECENTRALIZED PROGRAMMING RESPONSIBILITY

CHANNEL ALLOCATION AS RECOMMENDED IN REPORT


COMMON COUNCIL
CCB
PA ADM
SYSTEM OPERATOR
CITY ADM
EDUCATIONAL ADM
CDA
CDA
CDA
CDA
CDA
Community Channels (10)
Public Access Channels (2)
Existing Over-the-Air Channels (8)
Distant Signals (2)
Commercial Channels (3)
Program Schedules Weather, Etc. (1)
Future Channels (?)
FM Stations
Non-TV Services (?)
Municipal Channels (3)
Educational Channels (7)

CCB — Community Cable Board
CDA — Cable District Administration
PA ADM — Public Access (Channels) Administration
CITY ADM — To be designated within city government
EDUCATIONAL ADM — To be formed by educational institutions

SYSTEM OPERATOR — As recommended by report, a special public authority which also has responsibility for construction of distribution system. However, even if a non-profit or private franchise with authority to operate the system, responsibility for programming remains the same as indicated above.

Separate authority to operate (program) channels designated given to each entity identified above. System operator responsible only for assuring effective distribution of programming on channels operated by other entities.

DECENTRALIZED FUNCTIONS

RECOMMENDATION:

7. THAT CONTROL OVER PROGRAMMING, AS CONTRASTED WITH CONSTRUCTION AND MAINTENANCE OF THE SYSTEM, BE DECENTRALIZED SO THAT THERE IS AUTONOMY OF PROGRAM DIRECTION AND OPERATION WITH RESPECT TO COMMUNITY, EDUCATIONAL, MUNICIPAL, AND PUBLIC ACCESS CHANNELS.

The division of responsibility for management and operation of the distribution system and responsibility for programming is critical to prevent excessive power over dissemination of information and access to this communication media. There is also a further question of whether such programming responsibility should be left with any one entity. Therefore, the Committee addressed itself to whether program direction and operation of the community, educational, municipal and public access channels was to be separated from that entity with control over operational management for the system, i.e., the "system operator." There seemed to be little question that the best way to insure open access to the system and to encourage diversity of programming was for several organizations to have independent authority over different channels or groups of channels. To do otherwise would transfer the worst aspect of network controls in the broadcast industry to cable.

There will be some necessary relationship between the system operator and those responsible for programming these other channels, since they are dependent upon the effective working of the distribution network. If equipment and production facilities as well as staff must be made available by the system operator, such services must be made available as needed by the programmers. So, too, there is a dependency on the effectiveness of the programming from the standpoint of the system operator who will be assisted if the programming provides more interest and increases the number of subscribers. In fact, the programming on these channels provides some competition to the commercial channels which may be the best way to assure that programming on commercial channels is of high quality.

To assure that there is decentralized control over access to programming, the Common Council — in addition to granting authority for the construction, development and operation of the distribution system — should make a separate grant of authority for programming of these specified channels. Each of the identified organizations who will administer these channels would be given a separate grant of authority by the Council.

This is the approach that the White House Cabinet Committee on Cable Television reportedly determined most appropriate for development of the cable industry. It has suggested that there be specific separation of responsibilities between distribution of programming and production of the programs. Thus, no one will be given control of the entire system. As with the telephone company, the system operator would not have the right to prevent any message from going out over its lines except those matters which were in violation of criminal law (even then probably without any prior censorship). As with telephone lines, cable lines would be the responsibility of the system operator while programming of each of these channels would be the responsibility of the specific administration set up for each category of channel. This decentralization is the best protection for freedom of access to the system and freedom of information flow from the system. Responsibility for and regulations dealing with libel and obscenity would be that of the administrators of each channel. On public access and community channels, in fact, the operator, under FCC regulations, would have no control over program content and presumably no liability for that content. Thus, the organizations or individuals who obtained program time would themselves be held liable for any questions of libel or other criminal acts.

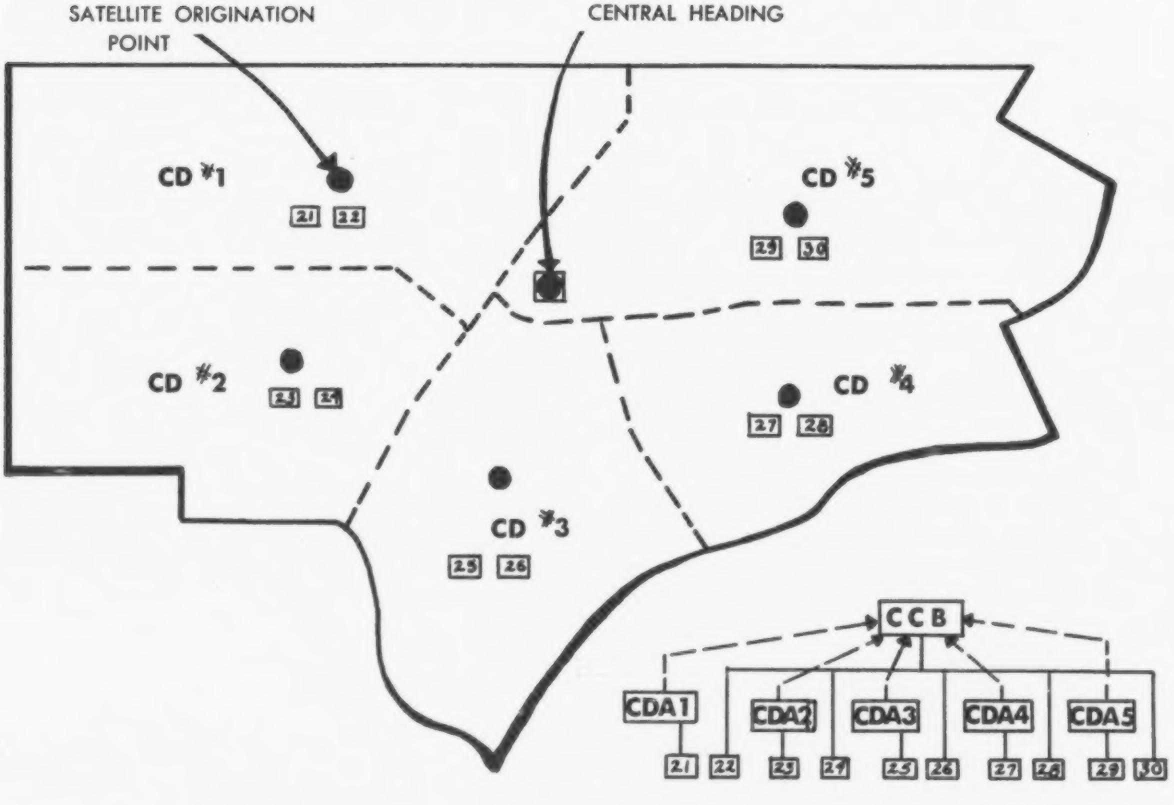
ORGANIZATION AND OPERATION OF COMMUNITY CHANNELS

RECOMMENDATION:

8. THAT NOT LESS THAN FIVE CABLE DISTRICTS BE CREATED TO IMPLEMENT RECOMMENDATIONS RELATIVE TO COMMUNITY CABLE OPERATIONS: THAT IN FORMING CABLE DISTRICTS, CONSIDERATION BE GIVEN TO SUCH FACTORS AS POPULATION DENSITY, ETHNIC GROUPS, GEOGRAPHIC BOUNDARIES, SPECIAL INTEREST GROUPS AND LOCATION OF DECENTRALIZED PRODUCTION FACILITIES (ORIGINATION POINTS).

To provide the most effective implementation of "community" cable operations some division of the City into communities of interest must be attempted. As previously indicated the division into franchise areas with all of its economic considerations would be most difficult. It is sufficiently complex to attempt to divide a city such as Detroit into five communities of about 300,000 each. The Committee did not feel that it had either the time, resources or information on which it could make specific recommendation as to the exact number of divisions (which the Committee has called cable districts), or their boundaries. It felt, however, that in making the divisions the factors that should be considered are: population density, existing ethnic groups and their locations, general geographic boundaries of the city and of natural areas within the city, location of special interest groups and the location of the production facilities of the cable system. Hopefully, decentralized production facilities or satellite centers where programs could be locally originated should coincide with the convenience of those persons within particular cable districts. To the extent possible, the cable district should provide the opportunity for formal organizations or for groups with similar interests to have access to the system through community channels. Secondly, areas where there are certain shared community interests might benefit by the opportunity to organize around the development of programming and thereby to enhance their sense of community. At the same time the Committee was concerned that the programming on such cable districts not set up additional barriers to understanding between people in the City. Thus, despite the organization of cable districts, all programs should be available to anyone within the city. Although some local event may not be of interest to others, there still should be the opportunity for all to view it. To do otherwise will tend to further fragment the city.

HYPOTHETICAL DIVISION INTO FIVE CABLE DISTRICTS FOR COMMUNITY PROGRAMMING PURPOSES


SATELLITE ORIGINATION POINT
CENTRAL HEADING
CD #1
21
22
CD #5
29
30
CD #2
23
24
CD #4
27
28
CD #3
25
26
CCB
CDA1
CDA2
CDA3
CDA4
CDA5
21
22
23
24
25
26
27
28
29
30

CD — CABLE DISTRICT
CCB — COMMUNITY TV CABLE BOARD
CDA — CABLE DISTRICT ADM.

Each CDA operates channel to originate in its Cable District. The second channel to originate from that District would be operated by the CCB.

Each CDA elects representatives (3) to the CCB which then constitute the members of the CCB.

RECOMMENDATION:

9. THAT FOR EACH CABLE DISTRICT THERE BE A **CABLE DISTRICT ADMINISTRATION** COMPOSED OF NINE MEMBERS ELECTED BY SUBSCRIBERS LIVING WITHIN THE DISTRICT; THE CABLE DISTRICT ADMINISTRATION SHALL HAVE RESPONSIBILITY FOR DETERMINING CRITERIA FOR SELECTION OF GROUPS AND ORGANIZATIONS TO BE RESPONSIBLE FOR PROGRAMMING **ONE** OF THE COMMUNITY CHANNELS IN EACH CABLE DISTRICT; THAT EACH CABLE DISTRICT ELECT THREE OF ITS NINE MEMBERS TO THE **COMMUNITY CABLE BOARD** WHOSE RESPONSIBILITIES WILL BE DIRECTION AND OPERATION OF PROGRAMMING FOR THE SECOND COMMUNITY CHANNEL IN EACH OF FIVE CABLE DISTRICTS. THE COMMUNITY CABLE BOARD WILL HAVE A TOTAL OF 15 MEMBERS. ONE OF THE TWO COMMUNITY CHANNELS IN EACH CABLE DISTRICT WILL BE PROGRAMMED BY THOSE GROUPS AND/OR ORGANIZATIONS RESIDING WITHIN THE GEOGRAPHICAL BOUNDARIES OF THE CABLE DISTRICT. A DESIGNATED PERCENTAGE OF TIME ON THE SECOND COMMUNITY CHANNEL WITHIN EACH CABLE DISTRICT SHALL BE ALLOCATED TO SPECIAL INTEREST GROUPS NOT GEOGRAPHICALLY DEFINED, E.G., ETHNIC, RELIGIOUS, VOCATIONAL AND LABOR GROUPS. THE COMMUNITY CABLE BOARD SHALL ESTABLISH A PROCEDURE FOR ALLOCATION, ON A COMMON CARRIER BASIS, OF TIME NOT PREVIOUSLY RESERVED ON COMMUNITY CHANNELS.

To provide for over-all administration of the community channels some sort of structure must be developed. Although there are many different approaches to this problem, the Committee felt that it was important that a specific structure be recommended for serious consideration by the Council. Without development of such a structure, we believed that operation and use of community channels would not occur as rapidly. It is the community origination of programs which may provide the most important communications aspect of the cable system for Detroit. The Committee's concern is to propose a structure that is sufficiently organized to provide leadership while still having the necessary flexibility for such a new venture as cable. The structure would have to provide local direction but also administer a city-wide "community" system.

The distinction between the community and public access channels is important here. Public access channels are made available to the public generally, usually without reservations of time and without broad-based community direction. The Committee determined that something more was needed. The community channels recommended here provide opportunities for development of community organizations and individuals in special interest groups to communicate among themselves and to others. It must provide a sufficient segment of the cable spectrum that all such needs can be accommodated. Most existing public access channels, as they are generally designated, are on a first-come, first-served basis. Although community channels will have such time available, most would be reserved on a leased grant of time. Also, of prime significance is the separation of the responsibility for community channels from the system operator's control and equally important, the responsibility of local communities to program channels themselves. This entire effort, it should be noted, is only feasible where there is a high capacity system.

In each cable district there would be a Cable District Administration which would have direct responsibility of one community channel from that District. This administration would be composed of nine members to be elected by the subscribers in that District. Although it is possible to have the members appointed, it was felt that an election was the most effective manner of representation. To the extent that two-way communication becomes possible, the elections by subscribers would be a fairly fast and easy process carried out by the system itself. Mailing, with certification by the existing subscriber, should be sufficient to provide a feasible election mechanism until such time as two-way communication becomes possible.

From each Cable District Administration three of the nine members would be elected to serve on a Community Cable Board making a total of 15 members (assuming five cable districts). The Cable Board would have direct responsibility for administration of one-half of the community channels as well as for problems of over-all concern to community channels generally.

In developing the community channel operations the Committee was cognizant of the fact that community organizations, ethnic groups, and those with special interests would not necessarily have one specific geographical location but often might be in several different cable districts. For this reason the Community Cable Board should have over-all responsibility for community channels. In effect, the Committee recommends a two-tiered system with five of the recommended channels, one per cable district, to be programmed by those organizations and groups residing within the geographical boundaries of that cable district.

The second channel assigned to that cable district under the direction of the Cable Board would be programmed by special interest groups not geographically definable.

Since channel time can be subdivided in a number of ways it was felt that a designated percentage — but not all — of the time on the second community channel should be available to geographically dispersed special interest groups. If sufficient activity and interest in programming by groups within a cable district overlaps, their programming on the second channel in their district could be permitted to the extent that it was not reserved for city-wide organizations and groups.

Clearly, not all of the problems that might arise in such an allocation of time nor in the range of responsibilities can be anticipated. It may be necessary to draw the cable districts and have interim committees appointed prior to the time that the cable system actually becomes available in a district. Representatives must be sent to the Community Cable Board and procedures for programming within that district must be developed in advance of subscriber hook-up.

To guard against the non-utilization of programming time because of lack of expertise and preparation in initial stages of development the Committee recommends that all time come under a procedure established by the Community Cable Board so that time, not programmed by a certain date before cable-casting, be made available on a common carrier basis to anyone requesting it. It could then be used for commercial purposes, for entertainment programming or for general public access purposes.

The FCC has adopted an allocation formula of N plus 1 for developing use of cable for community or other public (and commercially leased) purposes. As existing channels are in use during 80% of the time, a new channel **must** be added within another six months. It was the Committee's feeling, however, that unless there is a specified channel available to be programmed, the desire and activity to develop programming will not occur, or, at best, will occur quite slowly. Simply, as long as there is programming time available there will be efforts made to get on the cable. If there is no time which can be reserved the effort will not be forthcoming. The Committee felt that it has provided proper protections against abuse by making any unused time available on a common carrier basis, to any and all who wish access.

A diagram of the organization for the community channels is shown on Charts A and B set forth earlier in this section.

RECOMMENDATION:

10. THAT THOSE WHO REPRESENT THE CABLE DISTRICT BE ELECTED ON A STAGGERED BASIS FOR THE FIRST TERM, AND THEN ONE-THIRD BE ELECTED EVERY YEAR FOR TERMS OF THREE YEARS BY SUBSCRIBERS OF THE CABLE SYSTEM.

Although there may be a variety of approaches possible, the Committee decided that it should present a specific proposal relative to the procedures by which the Community Cable Board and Cable District Administrations were to be created. A major question is who shall determine the utilization of community channels. Because these are channels representative of community interests and they should be generally responsive to persons receiving cablecasts in a district, an election based upon subscribers seemed the most appropriate method of selection. Initially, this would require that the first term of office be staggered so that one-third of the directors of the Cable District Administrations be elected thereafter every three years.

RECOMMENDATION:

11. THAT IN OPERATION OF COMMUNITY CHANNELS:
    a. GRANTS OF TIME FOR PROGRAMMING BE GIVEN BY BOTH THE COMMUNITY CABLE BOARD AND CABLE DISTRICT ADMINISTRATIONS FOR A PERIOD OF NOT MORE THAN ONE YEAR, SUBJECT TO REVIEW FOR POSSIBLE RENEWAL AT THE END OF THAT PERIOD.

b. GRANTS OF TIME BE GIVEN FOR A REGULARLY SCHEDULED PERIOD OF TIME, E.G., ONE-HALF HOUR EVERY WEEK, SEVERAL HOURS EVERY DAY, OR ONE WHOLE DAY EACH WEEK. THE CABLE DISTRICT ADMINISTRATIONS AND COMMUNITY CABLE BOARD SHALL ASSURE FAIR AND EQUITABLE DISTRIBUTION OF PROGRAMMING RESPONSIBILITIES FOR PRIME TIME VIEWING.

c. TIME NOT SCHEDULED A REASONABLE PERIOD BEFORE CABLECAST REVERT TO COMMON CARRIER STATUS AND SUCH AVAILABILITY BE PUBLICIZED VIA THE CABLE SYSTEM.

d. SHOULD A GRANTEE FAIL TO USE ALLOCATED PROGRAM TIME WITHIN PUBLISHED DEADLINES, HIS GRANT WOULD BE SUBJECT TO REVOCATION.

In conformance with the idea that there must be specific opportunity for organizations and groups to program before the interest in programming is generated, the Committee felt that specific grants of time for programming, by lease, would be an appropriate method of allocation of programming time. Non-geographic channel leases would be granted by the Community Cable Board, district channel leases by the Cable District Administration; criteria must be developed to determine what organization, group or individual is eligible to obtain such leases.

The period of the lease should not exceed one year, when it would be subject to review and possible renewal. This should give sufficient time to determine how effectively the programming responsibility had been used. In effect, this approach relies upon a competition for the available time and the commitment from a group or organization that it will develop programs for a specified time period. Thus, a consistent time pattern is envisioned — regularly scheduled periods of time on a weekly basis — whether they be for half hour, hour, several hours a day, or a whole day.

To assure that there is fair and equitable distribution of "prime time," the Cable District Administrations and Community Cable Board should develop appropriate procedures to assure that such times are not allocated only to one organization.

The critical aspect is that there be a specified group or person responsible for a specific time period. Hopefully, this will be the catalyst to assure effective development of capacity to program and interest by organizations and groups. Without such an arrangement the development of local programming might be quite slow. With it, there is a significant incentive to develop program packages.* At the same time, this approach should generate the necessary focus to make any organizations much more active.

To guard against improper use of the lease, i.e., the failure to program the scheduled time slot, failure to have a program developed a reasonable period before the scheduled time, the time being made available would revert to common carrier time — available to anybody. The specific availability of such common carrier time would be an appropriate subject for publication through the system itself. Consistent failure to use allocated time, after a reasonable start-up period, should subject the lease to revocation.

RECOMMENDATION:

12. THAT THE COMMUNITY CABLE BOARD ALLOCATE PROGRAMMING FUNDS TO GRANTEES FOR LOCAL PROGRAMMING.

If funds are generated from outside sources, through advertising or through allocation of some percentage of system revenues, there is a necessity for some entity to administer and allocate the funds to the programming uses on community channels. Since it has both a representative basis from the Cable District Administration and overall responsibilities it seems more appropriate for the Community Cable Board to have this function. Such authority will require that an appropriate set of criteria be developed to allocate such revenues.

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*See similar recommendation, Sloan Report, **On the Cable, The Television of Abundance**, Public Access, Appendix C.

RECOMMENDATION:

13. a. THAT THE COMMUNITY CABLE BOARD AND CABLE DISTRICT ADMINISTRATIONS SHALL HAVE NO CONTROL OVER CONTENT OF PROGRAMS.
    b. THAT THE COMMUNITY CABLE BOARD AND CABLE DISTRICT ADMINISTRATIONS BE REQUIRED TO PUBLICLY EXPLAIN THEIR RATIONALE FOR REJECTION OF A GIVEN GRANTEE IF THE GRANTEE SO REQUESTS.

The rights of any groups, organizations or individuals programming on the community channels should include freedom from interference by the Cable District Administrations or Community Cable Board over program content. Although the Administrations or Board have general responsibility to set terms and perform certain responsibilities related to the community channels, it was felt that they should not control the program content. This is the same concept as an individual subscriber to the telephone system exercising the right to broadcast his own messages over the telephone. That is not to say that there could not be protections developed against obscene matter going over cable or the prevention of libel. Clearly, however, there should be no prior censorship. Adequate protections can be provided after violations occur by failure to renew leases or by restricting future access to the system to such persons. Although some persons or groups may be "judgment proof," there are civil sanctions that can be imposed on programming abuses. With denial of future access (after appropriate hearings and determinations) or civil liability these abuses should be reasonably controlled.

If an organization or persons are denied access there should be a requirement that a public explanation of the reasons for rejection be made if the party so requests. It was felt, however, that it was not proper to make these reasons public unless the party wished them made public.

RECOMMENDATION:

14. THAT THE COMMUNITY CABLE BOARD AND THE CABLE DISTRICT ADMINISTRATIONS PROVIDE PROCEDURES FOR A REVIEW OF THEIR ADMINISTRATIVE DECISIONS AND CITIZENS' COMPLAINTS.

There may be a number of complaints as the organization for community channels is worked out. Therefore, specific procedures should be developed by the Community Cable Board and Cable District Administrations to handle these matters. The Committee did not wish to provide detailed procedures, but felt that the Board and Administrations should develop the appropriate procedures. Obviously, in the end, anyone can have access to the City Council for appropriate hearing on such complaints and there is also access to the courts if desired.

IV. CHANNEL ALLOCATION

RECOMMENDATION:

1. THAT THE CABLE SYSTEM HAVE A MINIMUM OF 36 CHANNELS AVAILABLE FOR IMMEDIATE AND INITIAL OPERATION.

1. CHANNEL CAPACITY

Channel capacity refers to the number of channels available for use on a cable system. Unlimited by dependency upon one of the nation's scarcest resources, spectrum space, independent of the enormous expenses incurred by over-the-air transmission of programs and relieved of the burden of appealing to vast audiences for support, cable television is a medium uniquely able to provide a greatly increased number of channels at a relatively low cost. The ability of the system to provide a multiplicity of channels is the basis for increased services and access to the media. All channels are delivered by the same system and supported by revenues from the system as a whole. Channels may be activiated at little incremental cost.

Cable systems vary considerably in capacity, ranging anywhere from basic low capacity systems of 12 channels to 42 in San Jose, California and 64 in Akron, Ohio.[9] The earliest systems installed primarily improved television reception, were of low capacity, and provided minimal services. Those systems currently being considered or installed in major urban areas are of greatly increased scope and capacity.

It is difficult to determine an absolute number of channels necessary for an advanced cable system that will be financially feasible and yet offer an optimal number of services. While technology is not a limitation — the current state of the art is sufficiently advanced to allow for a system of eighty or more channels — consideration must be given to a balance between cost and service. Obviously, a high-capacity system would be more costly than a low-capacity (12 channel) system. A low-capacity system, however, will not meet the communications needs of the citizens of the City of Detroit.

Thirty-six channels is, in the consideration of the Committee, the very **least** needed by the city to effectively utilize the cable system and maximize its potential, both in terms of financial viability and services offered. The number thirty-six reflects the technical components existing in differing systems, i.e., thirty-six to forty channels would be available with a conventional system using two cables, or thirty-six channels would be available as the basic module in the dial cable system.

The Committee recognizes that not all channels may be used in the early stages of the system. As subscribers increase, however, services unique to cable will begin to develop and demand for channels will increase. It will be far more economical to create a system of high-capacity at the time of initial installation than to upgrade at a later date. The Committee's data indicates that if streets and building conduits have to be reopened to add capacity later, costs would be almost doubled.

If cable television is to effectively provide a full range of services, if it is to open opportunities for diversity and creativity in information, entertainment and instructional programming, it must have sufficient capacity. Program variation and provision of services will vary directly with the number of channels available on the system; the larger the number of channels, the wider the diversity which will result. To install less than a 36 channel system would be to severely limit — both now and in the future — the scope of services provided.

2. FCC CHANNEL REQUIREMENTS

The Federal Communications Commission, in recognition of the expanded use of cable systems requires basic minimum channel allocations in its Rules which were announced February 3, 1972. These minimums are designed to encourage cable expansion in major urban areas where over-the-air broadcasters feel threatened by cable television.

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[9] **Common Carrier Access to Cable Communications: Regulatory and Economic Issues,** Lionel Kestenbaum, Sloan Commission on Cable Communications.

THE FCC REQUIRES:

1. All cable systems in major urban markets must install cable systems having a minimum of a twenty-channel capacity.
2. All systems must have two-way, non-voice capacity.
3. All systems must have at least one public channel which will be available on a common carrier basis, first-come, first-served and non-discriminatory access. No charge will be made for use which is no longer than five minutes.
4. All systems must provide at least one channel which will be used by local governmental agencies, at no cost to user for first five years.
5. All systems must provide at least one channel for use by educational institutions at no cost for first five years.
6. All systems must carry the signals of all stations within 35 mile radius.
7. All systems within top 50 markets may import two distant signals, subject to certain specified limitations. (See Section VII, REGULATION)
8. All systems must lease "excess" channels to potential users.
9. One channel must be exclusively devoted to local origination programming.

While in general agreement with the FCC's intent the Committee considers the above requirements as **basic minimums** only, and has requested that these minimums be increased to adequately service the communications needs of the City of Detroit. This is with recognition that before it can enlarge the number of channels devoted to educational, municipal, community and public access uses, the City must submit a petition to the FCC and obtain approval of the proposed system for Detroit since channel allocations would exceed the FCC minimums.

RECOMMENDATION:

2. THAT ALLOCATION OF SUCH CHANNELS INCLUDE APPROPRIATE DIVISION BETWEEN EXISTING OVER-THE-AIR CHANNELS, DISTANT SIGNALS, PUBLIC ACCESS, 10 COMMUNITY (DIVIDED BETWEEN CITY-WIDE AND CABLE DISTRICT), COMMERCIAL (ON A COMMON CARRIER BASIS), EDUCATIONAL (DIVIDED BETWEEN ELEMENTARY, SECONDARY, AND HIGHER EDUCATIONAL INSTITUTIONS), MUNICIPAL, PROGRAM GUIDE AND THE LIKE, WITH SUCH RESERVED CHANNELS AS MAY BE APPROPRIATE. THAT ALLOCATION OF CHANNELS BE DETERMINED AT THE TIME THAT COMMON COUNCIL APPROVES INSTALLATION OF A CABLE SYSTEM IN DETROIT.

3. ALLOCATION OF CHANNELS

The Committee recognizes that it cannot specify in full detail the channel allocations for a system not yet designed and built; nonetheless, it felt it must make every effort to insure full development of the public service component of the system. There is little evidence in the brief history of cable television to suggest that such uses will automatically be included in any cable system. Therefore, while not endorsing absolute numbers, the report recommends **basic minimum requirements** for allocations in those areas it considers integral to a cable system which is to function as a communications medium in the public interest.

The Committee recognizes that the designation of specific numbers is to some extent arbitrary and may be subject to adjustment at the time of installation. However, these allocations are the collective judgment of the Committee and reflect its concern that the public interest services listed below must be accommodated on the cable system at the time of initial installation in the city.

a. Community (10)
b. Public Access (2)
c. Municipal (3)
d. Educational (7)
e. Local Television Broadcast Signals (8)
f. Distant Television Broadcast Signals* (2)
g. Commercial (Entertainment and Business) (3)
h. Program Guide (1)
i. FM Signals

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*If feasible under the **current** FCC requirements.

a. COMMUNITY CHANNELS

RECOMMENDATION:

3. THAT A MINIMUM OF 10 OUT OF THE FIRST 36 CHANNELS AND APPROXIMATELY 15% OF ADDITIONAL CHANNELS BE ALLOCATED FOR COMMUNITY OPERATION AND DIRECTION; EACH CABLE DISTRICT (ASSUMING FIVE) WOULD HAVE A MINIMUM OF TWO CHANNELS.

Community channels are those controlled by a community structure to provide original community programming. The purpose of community channels is to encourage programming that accurately reflects the needs and interests of the community. Such programming can provide the basis for heightened community consciousness, increased communication, strengthened ethnic identity, and improved community problem solving. It will facilitate the flow of information of particular interest to the community, encourage development and exposure of local talent, and stimulate much needed intra- and inter-community communications. Because community channels will be able to be seen city-wide by any system subscriber, community programming may help citizens develop an increased awareness and understanding of communities other than their own.

Access to the medium through community programming is a major justification for the installation of a cable system in the City of Detroit. Community channels are uniquely able to perform a communication function on a localized level. Only if a sizable portion of channels on the system are dedicated to local, community programming, the Committee feels, will the system adequately respond to the needs and interest of the public.

To implement community programming, the Committee would create five (5) separate Cable Districts with each district having at least two channels. These channels will be operated and directed by the Cable District Administration and the Community Cable Board, members of which are to be elected by subscribers in each community. The Cable District Administration will be responsible for programming by groups and/or organizations living within the geographic boundaries of the Cable District; the Community Cable Board will be responsible for programming by groups and organizations not geographically defined, e.g., ethnic, religious, vocational, labor. (See Section III, ORGANIZATION FOR OPERATION OF THE SYSTEM.)

While we have recommended that community channels be viewable city-wide by anyone subscribing to the cable system, community programming would be uniquely identified and structured by each individual community or Cable District.

The establishment of community channels provides a mechanism for community control of the medium and community access to the medium without sacrificing the compatibility and interconnectability of one system-wide hardware installation. In effect, each Cable District operates and is responsible for a "mini-system" within the larger system. With such autonomy, free from programming control by an overall system operator, all communities can be assured that the promise of local programming will be realized and accurately reflect their concerns.

Programming can be expected to vary widely from community to community as it functions to reflect the unique needs and desires of differing groups. Telecommunications needs in essentially black urban areas may not be the same as those of predominantly white working class communities. "Cable systems servicing each community should evolve quite differently — each with appropriate patterns of use, community and individual services and cultural programming. The economics of cable make it virtually a new medium, demanding new, inexpensive production techniques and new previously uneconomic subject matter. Different communities, then, should develop different kinds of services."[10]

Some of the uses to which community channels could be put include reporting of community news, health delivery programs, use of community resources, courses in home management and child care, job training and job availability, reporting discussion of community problems, cablecasting of block-club meetings, airing of views of local candidates for public office, creative entertainment programming, hobby shows, religious activities, and a community bulletin board. The possibilities are endless. Because the concept of inexpensive, readily available localized programming is in its infancy state, its limits cannot be foreseen. We assume, however, that such access to the medium will encourage experimental and creative uses of cable if there are sufficient resources available to equip local production facilities and train community people to staff and operate such facilities.

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[10] **The Electronic Grapevine (Cable and the Community)**, Cunniff, Lois, New York University, 1970.

b. PUBLIC ACCESS CHANNELS

RECOMMENDATION:

4. THAT A MINIMUM OF ONE PUBLIC ACCESS CHANNEL BE AVAILABLE ON A NON-RESERVED, COMMON CARRIER BASIS FOR NON-COMMERCIAL APPLICATION; REASONABLE LIMITS ON REPETITIVE USE BY INDIVIDUALS SHOULD BE IMPOSED; THAT A MINIMUM OF ONE ADDITIONAL PUBLIC ACCESS CHANNEL BE AVAILABLE ON A RESERVED COMMON CARRIER BASIS.

Public Access Channels are those channels designated for use by the public on a common carrier basis — first-come, first-served. A mechanism on one of those channels for reserving time in advance should be established. Any person desiring to transmit programs or offer services would have a chance to do so on a fair and non-discriminatory basis. There should be no interference or control other than libel and obscenity restrictions. (See Section III, ORGANIZATION.) Like community channels, public access channels provide a mechanism for expanding access to the medium, encouraging free expression of ideas and opinions and precluding control by the system operator.

Whereas Community Channels will program for a geographic community or a community of interest, Public Access Channels are designed to allow an expression of views that may be unrelated to any specific area. The primary distinction is that the administration of these Public Access Channels differs from the Cable District roots of the Community Channels. The former are entirely open to the expression of all views and opinions and provide a forum for the free flow of information and viewing by the citizens at large. Both Community and Public Access Channels serve similar but yet distinguishable needs. The first assures community based control and direction with specific reference to geographical area. The latter is based on system wide interests to assure open access to the system.

The programming on the non-reserved Public Access Channel may take the form of the "soap box" forum with citizens presenting views on a variety of subjects with varying degrees of expertise, each speaking for a predetermined amount of time. In this way, Public Access Channels will provide a platform for political candidates. The second Public Access Channel would be structured so that some segments of time may be reserved in advance, so that organizations, individuals or groups could present regularly scheduled programming. Programming on the reserved Public Access Channel might include a city-wide, regularly scheduled ombudsman service. legal aid information, information about social service resources, or in-depth discussion of urban issues. Time not reserved in advance would be made available on a common carrier basis.

Consistent with the function of the Public Access Channels as an open forum, the Committee recommends that these channels be used for non-commercial purposes, and that the use of time of the channels be structured so as to preclude monopolization by any user.

Public Access Channels are non-commercial in the sense that they are non-revenue producing channels, their primary purpose being that of producing public service programming. Commercial messages might be allowed* on a limited basis at natural breaks, for purposes of supporting in part, cost of such programming. While the FCC requires that the system operator provide use of the Public Access Channel free of charge to each user for the first five minutes, the Committee recommends that there be no charge for channel use no matter what the period of time. Revenues to support these programming costs may be garnered from advertising revenues and from allocation of funds from gross revenues. (See Section V, ACCESS.)

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*Subject to FCC waiver of its newly issued rules which state to the contrary, upon petition for special relief.

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c. MUNICIPAL CHANNELS

RECOMMENDATION:

5. THAT A MINIMUM OF THREE CHANNELS BE DESIGNATED FOR MUNICIPAL USE.

Municipal channels are those designated for use by the municipality itself, and will be programmed by it. The facilities, contributed by the cable system operator, should be operationally controlled by an administrative structure designated by the City.

Cable television has major, but as yet untapped, contributions to make toward increasing the impact of municipal services. Telecommunications is the tool by which municipal institutions can assess, process, and transfer information efficiently and effectively both within governmental agencies and between government and the citizenry.

As urban problems and their solutions have become increasingly complex, the need to communicate with the citizenry has taken on new dimensions. Citizens must have access to large amounts of information rapidly and reliably. The technology of cable offers the opportunity for municipalities to creatively address the problems of communications needs, provision of services, increased governmental efficiency. The advent of even limited two-way capability, will create the vehicle for participatory democracy permitting subscribers to participate in public preference polling, Common Council, and special interest meetings.

The services which municipal channels could provide are virtually limitless: traffic surveillance, inter-governmental communications, citizen information and referral programs, library serices, human service "outreach" programs, public opinion polling, job availability; reports, pollution sensors, discussion of city problems and health delivery programs to name but a few.

d. EDUCATIONAL CHANNELS

RECOMMENDATION:

6. THAT A MINIMUM OF SEVEN CHANNELS BE DESIGNATED AS EDUCATIONAL CHANNELS; THAT 20% OF FUTURE CHANNEL ALLOCATION BE DESIGNATED AS EDUCATIONAL CHANNELS.

These are channels devoted to educational purposes and programmed by an appropriate structure to be determined by the participating educational institutions, public and private.

It is the view of the Committee that one of the most significant possibilities for use of cable television is for instructional purposes. Effective use of cable technology may prove to ameliorate the educational crises facing most urban areas today. Educational programming on cable can be applied to cut costs, to increase the awareness of educational opportunity, to reduce the natural reluctance of prospective participants to attend academic facilities and to eliminate many of the transportation and scheduling limitations of the present educational system.

Educational cable services can support programs in existing school situations, and can, in addition, provide educational opportunity for those who have left the educative process because of age, illness, lack of interest or lack of success. Given the availability of many low-cost communication channels and the provision for student interaction or feed back of a system with two-way capability, cable television promises to add a new dimension to urban education. It will, for example, be possible for a student to attend at least some of his classes in his home.

Without attempting to commit the educational institutions of Detroit to any specific action, we can only sketch some of the possible opportunities for education that would be provided by a cable system. The first changes most likely to be introduced within one to five years of the installation of cable, would involve expanded audio-visual distribution and shared resources. With a cable system, current audio-visual resources — movies, video tapes and special programs — could be made available more frequently and to wider audiences, since the materials themselves would not have to be physically transported. Course offerings and special speakers could also be shared; a lecture on the History of Asian Peoples at Cass Technical High School, for example, could be viewed simultaneously over the cable by students in every other high school in the city. And a university course with restricted enrollment because of classroom size could easily be transmitted to branch facilities.

Educational programs in this sense would not be limited to those conducted by schools, but might also span the vast number of organized educational programs carried on by agricultural, business, labor, governmental, religious, professional, political, social service or industrial organizations. It has been estimated that one-fourth to one-third of the adult population has taken advantage of such programs and that the total number participating almost equals the number of students enrolled in regular schools. These peripheral educational programs will probably take even greater advantage of the opportunities provided by cable television, since they are less encumbered by institutional resistance and have more flexible resources at their disposal. The Wayne State University Center for Adult Education, for example, using existing branch libraries, storefronts, schools, union halls and churches, could establish 175 mini-branch campuses linked to a central broadcasting facility located on the Wayne Campus. Using video tapes of regular lectures and generating special adult education materials, they will be able to offer five times as many courses at one-half the unit cost. Federal Model Cities or Poverty Programs could develop programs to assist in the early learning experiences of disadvantaged children. One might be designed for children who speak Spanish at home, another might teach beginning color concepts. Private facilities such as General Motors or public facilities such as a police department might want to use cable television for job upgrading programs. The training could be done at the employee's job location without the loss of time involved if the program were conducted at a centralized facility.

Over the long run, cable educational channels may serve as a mechanism to bring about fundamental changes in the entire education system. The Committee sees the educational system moving in the following direction:

1) Decentralization of facilities— to enable expansion of services without major increases in capital costs.

2) Increased cooperation between previously autonomous units of the education system, such as the University of Detroit and Wayne State University or the Detroit Public Library and the Wayne County Library, with concurrent cost reductions and avoidance of duplication.

3) Expansion of the range of services.

4) Individual attention to the student — a student who receives his course instruction via cable will respond immediately, via a push-button response terminal, to the questions posed by the instructor. Responses go to a computer and a printout is available to the instructor, who immediately knows the progress, has understanding of each student and can advise further study or remedial techniques necessary.

Obviously, the success of a cable system educationally and its ability to encourage educational innovation and encompass the learning needs of a diverse society, is at least in part a function of the availability of channels for such use. To this end, the Committee recommends that a minimum of seven of the system's channels be designated for public and private educational use. Division of these channels between primary, secondary, higher education is to be left to the structure created to administer educational channels.

e. LOCAL TELEVISION BROADCAST SIGNALS

RECOMMENDATION:

7. THAT ALLOCATION OF SUCH CHANNELS INCLUDE EXISTING OVER-THE-AIR CHANNELS.

Over-the-air channels are those channels transmitted through the air now available to home receivers. In the City of Detroit, these are VHF channels designated 2, 4, 7, 9, and UHF designated as 50, 56 and 62. (Channel 20 has been licensed by the FCC but has not yet broadcast on a regular basis.)

The Federal Communications Commission has been intensively engaged in the process of reviewing its cable policies since 1968, when the Supreme Court affirmed the Commission's authority to regulate the industry. In its most recent rulings, promulgated in February, 1972 the Commission established **mandatory carriage rules,** thus assuring cable viewers that they will receive all television signals that are significantly viewed in their community. The Federal Communications Commission rules state that all cable systems may (or must, upon request) carry the signals of all stations licensed to communities within 35 miles of the cable system's community and all stations "significantly viewed" in the community. All but channel 62 (and 20) meet these requirements and must be carried as part of any cable system here.

f. DISTANT TELEVISION BROADCAST SIGNALS

RECOMMENDATION:

8. THAT ALLOCATION OF SUCH CHANNELS INCLUDE DISTANT SIGNALS.

"Distant signals" are those broadcast signals originating in an area outside a 35-mile radius from or not "significantly viewed" in the community. The cable industry and the broadcast industry have a long history of disagreement about the right of system operators to import distant signals to be placed on the cable system. Cable operators view distant signals as a valuable service because such signals would provide additional programming and would heighten interest in subscribing to the system. Broadcasters, on the other hand, view the importation of these signals as direct competition with their markets.

The FCC in February of 1972 ruled that cable systems in the top 50 markets (Detroit is ranked as fifth) would be permitted to carry two distant signals but could not duplicate programs carried by local stations. These signals, if they originate from one of the top 25 TV markets, must be the closest available signals — for Detroit this probably means Cleveland and Pittsburgh; otherwise they could be imported from anywhere in the country, thus allowing the system operator to choose from a wide range of the country's independent stations. The most attractive, however, tend to be in the top 25 markets.

The Commission's rationale for allowing only two distant signals was that such importation would open the way for cable development in major markets, while not making an undue impact on the broadcast industry. At the same time protection of copyrights to specific programs was made almost absolute. The effect of this compromise will apparently be to prevent any significant importation of programs from stations outside this area. Some programs can be imported where they have not been broadcast by local stations.*

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*There are also more liberal importation rules for foreign broadcasts, possibly allowing cable to show CBC programs not aired by Channel 9.

g. COMMERCIAL CHANNELS

RECOMMENDATION:

9. THAT A MINIMUM OF ONE CHANNEL BE AVAILABLE FOR COMMERCIAL APPLICATION ON A COMMON CARRIER BASIS; REASONABLE LIMITS ON REPETITIVE USE BY INDIVIDUALS OR GROUPS SHOULD BE IMPOSED; THAT TWO ADDITIONAL COMMERCIAL CHANNELS BE MADE AVAILABLE TO SYSTEM OPERATOR.

Commercial channels can be used for commercially sponsored programming or other commercial purpose, such as cable-cast entertainment (movie packages, sporting events) and to serve as Pay TV (if approved by the Common Council). Also, these channels can provide businesses with such services as data transmission, facsimile reproduction and professional conference lines. They are "commercial" in the sense that all services provided on them, whether of an entertainment or business nature will be revenue producing for the system operator. Advertising will be sold or time will be leased on these channels. Use of these channels will, in addition to subscriber rates, become the major source of revenue for the system. It may be fairly stated that well operated and directed commercial channels will increase both the subscription level and revenues to the system, creating the base from which the system operator can provide the high level of public services recommended in this Report. In other words, they are critical sources of support to finance the construction and operation of this total system.

Applications for commercial uses of cable system are many. Major retail establishments may wish to purchase time on these channels in order to advertise merchandise and/or produce institutional programming. With the advent of two-way capability, these channels will become the vehicle for at-home shopping. Businesses of all kinds wishing to reach a large local audience could purchase a movie or sports package which would be programmed on these channels. In return these businesses pay an advertising fee to the system operator. Real estate firms might find the use of such channels invaluable for area-wide viewing of homes for sale. Cultural institutions such as the Detroit Symphony and local theaters may wish to lease time on the commercial channel to encourage citizens to purchase tickets to performances. Businesses and industries may seek to recruit personnel or inform the public of its newest products via cable.

Banks, airlines, bus lines, brokerage houses and businessmen in general may wish to utilize the cable for such data transmission services as recording of transactions, making reservations, bill paying, inventory control, general record keeping and professional conferences. Further business applications are monitoring services such as burglar and fire alarms, water and electrical meter reading.

Attractive and useful commercial applications of cable will continue to develop, as the medium matures. It is in recognition of both the services which can be made available to business, labor and industry through the cable and the diversity of entertainment programming which will be provided on these channels that the Committee recommends that there be a minimum of three commercial channels on any cable system installed in the City of Detroit.

In addition to the basic role of commercial channels in the economic viability of the system, the Committee recommends that there be one of these channels operated on a common carrier, first-come, first-served basis so as not to preclude availability of time to the smallest of commercial users or advertisers. Otherwise, small businesses might have difficulty in obtaining access to this medium. Adequate protection also must be taken to preclude one or more users from monopolizing even this one channel.

h. PROGRAM GUIDE

RECOMMENDATION:

10. THAT ONE CHANNEL BE UTILIZED FOR PROVIDING A SYSTEM-WIDE PROGRAM GUIDE, AUTOMATED TIME, NEWS AND WEATHER.

With the many channels envisioned, a method whereby program information can be easily obtained would seem to be essential. One channel dedicated to displaying what is appearing on the system seems the most immediate and efficient way of publicizing the current programming. Such program guide would be created by the system operator each day and would appear on the channel on a constantly rotating basis. Interspersed with the repeated showings of the program guide could be news, time and weather reports. This service has been extensively used in most cable systems and is relatively simple to provide.

Further, the program guide channel might be used to publicize time which is available on a common carrier basis.

i. FM SIGNALS

RECOMMENDATION:

11. THAT THE SYSTEM OPERATOR BE AUTHORIZED TO CARRY EXISTING OVER-THE-AIR FM BROADCAST STATIONS ON THE CABLE SYSTEM.

FM or frequency modulation signals occur at at a different frequency than that used by television audio and visual signals, therefore making it possible for the cable system to carry both FM and TV signals without interference from one another. The FM signal, like the TV signal, is obtained from the system's main antenna and transmitted with faithful reproduction to the user. In effect, the cable can also act an antenna for an FM radio, providing improved reception and obviating the need for an outside antenna.

Availability of FM signals on the cable system is a simple and inexpensive service for the system operator to provide and will be an additional attraction for potential subscribers.

4. COMMON CARRIER STATUS

RECOMMENDATION:

12. THAT COMMON CARRIER STATUS BE APPLIED TO ALL TIME NOT REASONABLY PROGRAMMED IN ADVANCE ON PUBLIC ACCESS, MUNICIPAL, EDUCATIONAL AND COMMUNITY CHANNELS.

"Common carrier" operation of cable systems has become almost synonymous with freedom of the electronic medium from the constraints of the present broadcasting structure. Strictly speaking, common carrier refers to **common carrier access;** that is, anyone who wants to transmit programs or offer services over a cable systsem can do so on a fair and non-discriminatory basis, without interference or control by the system operator. Common carrier access on cable systems is desirable because it provides a means for fully utilizing the low-cost multi-channel capacity of cable systems to achieve important goals of communication.

All channels allocated in this Report, if not used for the designated purpose, with the exception of those which are a retransmission of over-the- air signals (UHF, VHF, and Distant Signals), will revert to common carrier status. To summarize, common carrier status will apply as follows:

Community Channels — Programming on these channels will be a function of elected boards who will grant leases of time to community organzations and/or groups. All time not reserved in advance will revert to common carrier status, available on a first-come, first-served basis.

Public Access Channels — Of the two such channels recommended in this Report, one channel will operate solely as a common carrier, first-come, first-served. The second public access channel will allow blocks of time to be reserved, with the provision that all time not programmed reasonably in advance will revert to common carrier status, available on a first-come, first-served basis.

Educational and Municipal Channels — These channels function with reserved blocks of time and all time not reserved in advance will revert to common carrier status, available on a first-come, first-served basis.

Commercial Channels — One of the three commercial channels recommended would be on a common carrier basis, first-come, first-served.

Four additional characteristics are identified with common carrier status: (1) availability of time, (2) notification of availability of time, (3) uniform rates, and (4) no control of content by system operator.

(1) Use of a channel on a common carrier basis requires the creation of safeguards against repetitive use by individual and/or groups. To allow anyone to dominate the medium would be contrary to the intent of the common carrier status. This Committee urges that all structures involved in the operation and direction of the system's channels regulate the use of the common carrier channels to avoid dominance by individuals and/or groups.

(2) If common carrier usage is to operate successfully, availability of time must be made known to the general public. Otherwise these channels will be greatly underused. Availability could be publicized either on the system itself, other advertising media, or through regular mailings to subscribers. The Committee urges that the best method of publicizing the availability be fully developed and implemented.

(3) The Committee has recommended that usage of public access, municipal, and educational channels be at no charge to the user. If any charges are made for use of channel space, however, the FCC requires such charges to be "reasonable" and "non-discriminatory." This implies that rates be pursuant to reasonable classifications (e.g., between times of day, types of use) and that the same rates apply to all users.

(4) Implicit in the term "common carrier status" is that there is no interference or control by the system operator over the content of any program on any common carrier channel.

V. ACCESS

1. PROGRAMMING ACCESS

A. WHAT IS PROGRAMMING ACCESS?

Programming access means the opportunity for persons who want to transmit programs or offer services over cable systems to do so. Cable's ability to provide large numbers of channels along with relatively low production costs for programming will allow access to a degree never before available. Indeed, open access and diversity of programming are the hallmarks of cable television. Expanding access will allow programming to be developed to fulfill the entertainment, social, educational and political needs of the City. It will offer the opportunity for programs of interest to minority audiences whether they be cultural, intellectual, or economically disadvantaged.

B. SIGNIFICANCE OF PROGRAMMING ACCESS

The significance of programming access is that it provides a vehicle for individual, group, institutional and community self-expression. This will mean an opportunity to express cultural diversity and individualism rather than mass tastes. Such access will encourage a free flow of information; innovative, diversified and specialized programming; educational, business and entertainment offerings. In short, access to this media can and should become an opportunity for all to participate.

Such access to broadcast (over-the-air) television is extremely limited. Because broadcast revenues are dependent upon the selling of products to viewers, television fare is geared to the widest possible consumer audience and often the lowest common denominator. Specialized programming appealing to less than maximum numbers is not economically feasible on broadcast television. Viewers have little direct effect on what programming is produced, nor can they gain access to the media to deliver their own messages. Because a half hour of network television time can cost over $50,000, programs of a purely local nature with limited audience appeal would require that the broadcast stations forego the high profits of mass audience programming. In contrast, programming costs on cable range from a few dollars to several hundred, depending on the nature of program design.

Communications media have become increasingly necessary and valuable tools in the modern urban environment. The ability to communicate widely in the urban setting is a source of vast power. Open access to the media will materially affect our ability to solve urban problems; it will enable more of us to become involved in the political process. It will allow the natural expression inherent in a pluralistic society. The communications media will no longer be controlled by a small obligarchy of commercial interests, but will truly belong to the people.

Television is a medium singularly able to communicate with Americans. Approximately 95% of all Americans watch television and it has been estimated that by the age of 18, most youths have viewed 75,000 hours of television, including 350,000 commercials. A survey conducted by Roper Research Associates as reported in **Television and the Wired City,** supported the theory (see following Table) that there is an increasing reliance upon the television medium as opposed to the written word.

TABLE 1. THE MOST BELIEVABLE MEDIUM, 1960-1967

The following responses were obtained to the question: "If you got conflicting or different reports of the same news story from radio, television, the magazines, and the newspapers, which of the four versions would you be most inclined to believe?"

	Television		Newspaper		Radio		Magazines	
	Negro	White	Negro	White	Negro	White	Negro	White
	%	%	%	%	%	%	%	%
1960	31	29	30	32	22	11	2	11
1961	42	38	23	25	16	11	5	11
1963	43	37	30	24	13	12	6	10
1964	53	40	17	24	9	8	8	11
1967	61	39	15	26	6	7	3	9

Percentages do not add to one hundred since some responses fell into the "don't know/no answer" category.

Source: Roper Research Associates, 1968, as reported in **Television and the Wired City**, p. 26.

The poor, the young, and minority groups, especially blacks, view more than the general population — estimates of viewing time vary from 30 to 60 hours a week. The National Commission on Violence found:

> ". . . poor and black use the media for socialization as a means of contact with and information about the world outside his environment; believes its messages more readily; emulates role models he sees because often they are missing in his home. It fills a vacuum."

Television, especially for those outside of the mainstream of American life, plays a pervasive role. It has a significant influence on values, goals, and actions. Dr. Maddox in his **Summary of Viewing Habits and Audience Characteristics,** states that while "70% of Americans use TV as a primary news source, 84% of blacks use TV as a primary news source, most as the only news source. The use of written material by the poor is so marginal as to be a non-useful means of reaching them."[11]

In addition to its role as the major source of news and information mass television by its very nature tends to portray mass images which are often not reflective of the needs or interests of the minority viewer. Although some efforts have been made to correct the portrayal of minority groups as stereotypes, significant minority programming is still non-existent. Situation comedies, drama, and even commercials reflect a picture of American society that is largely white, middle class, and portrays a similar value system. To an extent, open access to the media, particularly through cable, can correct this narrow view of our society.

It is essential that such access not be used to duplicate mass media. It should be sufficient if it provides, initially, for internal communications within groups and neighborhoods. This means that cost barriers to this media must be minimal. Finally, there must be efforts to reduce prior restraints on program content. In all likelihood Federal legislation is needed dealing with responsibility for libel and obscenity; taking away the need for pre-screening for content.

The paramount goals of a telecommunication policy for the City of Detroit should be to provide public services, to satisfy long submerged ethnic and minority interests and to guarantee the availability of individual expression. Such is the promise of a cable television system if it unqualifiedly guarantees open access.

C. SUPPORT FOR LOCAL PROGRAMMING

Often referred to as local origination or cablecasting, it is programming which is originated on the local cable system. Such origination is characterized by its concern with local issues, events and people. Programming produced in Detroit may range from school plays, athletic events, health care programs, gardening and sewing techniques to educational courses, neighborhood news and Common Council sessions. The many channels available will allow a variety of programs tailored to specialized needs, much as trade publications cater to relatively small, specialized audiences. Local programming may be most useful in inner-city areas as a problem solving mechanism, dealing with the problems of welfare, job placement and health services. Rand studies state that "Local origination in the ghetto can perhaps be used to interest local residents in solving their own problems rather than being totally independent on outside help. Local origination channels (with feedback response from viewers) can be used to gather data about problems, to build leadership within the community, and to create the sense of participation essential for the success of almost any program or service. Ghetto programs often fail for much the same reason that foreign aid programs fail; to the extent that they appear imposed from the outside, they stifle local initiative, responsibility, and dedication."

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[11] Dr. Gilbert A. Maddox, **Summary of Viewing Habits and Audience Characteristics,** University of Michigan, 1970.

The Rand studies further considered the barriers to successful local programming. They found: "The major problems of successful origination are frequently inadequate budgets, poor and unsuitable equipment, and difficulties in informing subscribers in a timely fashion of exactly what is to be presented."[12] It is in recognition of the critical need for support of local programming that the Committee adopted its recommendations regarding the provision of funds and facilities for such purposes.

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[12] **Cable Television: Opportunities and Problems in Local Program Origination,** N. E. Feldman. A report prepared for the Ford Foundation by the Rand Corp., 1970.

RECOMMENDATION:

1. THAT FUNDS BE ALLOCATED FROM GROSS REVENUES TO SUPPORT PROGRAMMING ON EDUCATIONAL, MUNICIPAL, COMMUNITY AND PUBLIC ACCESS CHANNELS.

To fulfill its promise of meeting community needs, local programming must be promoted, encouraged and supported. The cable system will be utilized only to the extent that adequate financial support is available. Provision of funds for local programming is somewhat of a circular problem: a high level of local programming will increase the subscription penetration rate, which in turn can be a source for necessary funds to support such programming. Conversely, without the high level of local programming, the subscription penetration rate may be less, thus reducing the base of support for the funding of such programming.

While funds needed to produce local programs are only a small fraction of those needed for network television, which cost in excess of $50,000 per half hour,[13] it is clear that programming cannot be produced for the cable system in Detroit without financial support. Experience in other cities indicates that local programming costs vary considerably. The cost for a talk show may be no more than the price of video tape, whereas more ambitious efforts can, of course, cost hundreds of dollars. The quality and scope of local programming may be said to be to some extent a function of the availability of funds. While the Committee did not specify the percentage of gross revenues to be allocated for such purposes, our research indicates that five percent of gross revenues would be appropriate.[14] Based upon the Report's revenue projections of subscriber rates of $5.00 per month, a penetration rate of 35 percent will realize gross subscriber revenues of approximately $9 million a year. (See Section VI.) This level of penetration will probably not be reached until the third year of operation. If five percent of that gross revenue were allocated for purposes of local programming, the amount of money available would be approximately $450,000 a year. It is appropriate to realistically assess what this figure would mean to the recipients of such funds.

Assuming such funds were allocated to the ten community channels, each channel would receive $45,000 a year. If a community channel wished to program twelve hours a day, seven days a week, 52 weeks a year, this would mean 4,380 hours of programming. Stated differently, $10 would be available for each hour of community programming. This figure represents **programming** or **production costs,** not the cost for cable time or studio facilities which are to be provided by the system operator. Such funds would be used for personnel, sets, talent, tape and a myriad of other components needed to produce local programming. If such funds are to be used for programming on public access, municipal and educational channels, then obviously, the amount of money for each would be diminished. If divided between educational, municipal, public access and community channels, each would receive approximately $2,000 per year for program costs.

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[13] **On the Cable, The Television of Abundance,** Sloan Commission, McGraw-Hill, 1971.

[14] **Cable Television and the Question of Protecting Local Broadcasting,** Leland L. Johnson, Rand, October, 1970.

It is apparent that these revenues alone will not be sufficient. Other sources such as foundation grants and public and private donations will have to be tapped to support programming costs. This is especially true before the system is able to generate any revenues. And yet, as minimal as such allocations of gross revenues will be, without them the promise of local programming will go unrealized — to the detriment of citizens and the cable system itself. Because the Committee feels that local programming must be an inherent part of the cable system, it urges that consideration of the overall cost of installing a cable system in Detroit include programming (software) costs as well as technical (hardware) costs, and that the Common Council stipulate in its grant of authority that a certain percentage of the gross revenues of the cable system be allocated for programming expenses.

The Committee recognizes that this stipulation means, in effect, that all subscribers, through a portion of their monthly fees, will be helping to pay for the educational, municipal, community and public access programming. (See Section VII, REVENUE, Recommendation 1.) Presumably, however, such programming will be for the benefit of all. Surely the educational services, by improving the functioning of government, will serve the public good. Community and public access programming will benefit some subscribers less directly, although it may well be possible that some programs will be of interest beyond their neighborhood or intended audience. Further, the benefits of a heightened community consciousness and community spirit should serve all subscribers.

There are other possible sources of funding for local programming, such as (1) commercial advertising, (2) Pay-TV revenues, and (3) public or non-profit support. These sources must be examined and utilized whenever possible.

RECOMMENDATION:

2. THAT THE OPERATOR OF THE CABLE SYSTEM BE REQUIRED TO PROVIDE AND MAINTAIN IN EACH CABLE DISTRICT, WITHOUT CHARGE, ADEQUATE FACILITIES AND EQUIPMENT IN PROPER CONDITION (INCLUDING MOBILE EQUIPMENT) FOR PROGRAM PRODUCTION ON COMMUNITY CHANNELS.
3. THAT THE OPERATOR OF THE CABLE SYSTEM BE REQUIRED TO MAKE PRODUCTION FACILITIES AVAILABLE IN EACH CABLE DISTRICT, AT NO COST, TO THOSE INDIVIDUALS AND GROUPS WHO WISH TO PRESENT THEIR OWN PROGRAMS ON PUBLIC ACCESS CHANNELS, THAT THESE FACILITIES BE MAINTAINED AND STAFFED BY THE SYSTEM OPERATOR AT NO COST.

Local origination requires a studio, camera equipment and technicians. The equipment and facilities necessary for cablecasting are considerably less costly, and far less complicated, than those needed for broadcast television. According to a paper prepared by Theodore S. Ledbetter, Jr., for the publication **Cable Television in the Cities,** "Cablecasting can provide an influential voice and generate long-term, stable community development through low cost, locally produced programming by minority groups and for minority groups."

Mr. Ledbetter outlined basic studio facilities for cablecasting. They consist of a sound-proof, air-conditioned room with a good supply of electrical outlets. Although everything can be done in a single room, he suggests that it is helpful if a small separate room is available as a control room. Good lighting is one of the most important considerations for good video pictures. At minimum, floodlamps purchased at a hardware store can be suspended from overhead pipes. Basic studio equipment for videotaping for cablecasting consists of two TV cameras, a switcher, a TV monitor, videotape recorder, lights, microphones and audio mixer. The switcher is used to switch from one camera to another. The monitor shows what is being recorded on tape, and the audio mixer controls the inputs from the microphone. Both the video and the audio are recorded on the same tape at the same time by the videotape recorder. More elaborate studios would contain more and better cameras and recorders (e.g., color), a monitor for each camera and a film chain that would allow movies and 35mm slides to be part of the program. Several types of equipment are listed below:

BASIC EQUIPMENT FOR CABLECASTING*

	Black and White (B/W)			Color	
Equipment	Basic	Average	Basic	Average	Full
Figure		II	III	IV	V, VI
Cameras	2	2	2	2	3
tripods	–	–	–	–	–
dollies		–	–	–	–
zoom lens	–	–	–	–	–
headsets	–	–	–	–	–
Control					
switcher	–	–	–	–	–
(control changed from one camera to another)					
special effects	–	–	–	–	–
Film Chain		–		–	–
audiotape player		–		–	–
Monitors, Video	1	4	3	4	5
(to view what is being recorded)					
Waveform Monitor				–	–
Microphones	2	3	2	3	4
Mixer, Audio	–	–	–	–	–
(to control sound levels being recorded)					
Audio Monitor		–	–	–	–
(to hear what is being recorded)					
Video Recorders	1	1	1	2	2
tape size	½"	1"	1"	1"	1"
Lights	–	–	–	–	–
Approximate Cost	$10,000	$20,000	$35,000	$50,000	$80,000

*__Cable Television in the Cities__, Charles Tate, Editor.

In addition to studio and operating equipment, personnel to operate the equipment and produce the programming is required. The minimum requirement for any studio is a crew of three persons — one for each of two cameras and one to operate the control room equipment. Other people may function as producers, directors, and technicians. Local origination facilities will create exciting and challenging job opportunities. Because the success of local origination will rest in large measure upon adequate trained personnel, the Committee has recommended that such personnel be trained by the system operator. (See Section X, EMPLOYMENT.)

If local origination is to satisfactorily reflect the needs of the people of the City of Detroit, there must be an adequate number of originating facilities. The experience of New York City which at present has only three (3) outlets, mostly in upper income areas, has demonstrated that if studios are not numerous and located close to the community, use of the facilities is limited. "The poor and the unorganized are reluctant to travel to unfamiliar areas, discouraging full utilization."[15]

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[15] New York Times, **Public Access TV Here Undergoing Growing Pains**, October 26, 1971.

By requiring the system operator to maintain, in each cable district, the facilities and equipment necessary for programming, the Committee is seeking to guarantee that the promise of the community and public access channels is fulfilled. Obviously, no group, organization or individual should be expected to provide these facilities himself. If there were to be more than a nominal charge for such services, the Council would just be erecting economic barriers to replace the current barrier of limited and costly channel availability. The Committee strongly believes that without this requirement for provision of facilities, all of the hopeful statements about open access to programming will become a farce.

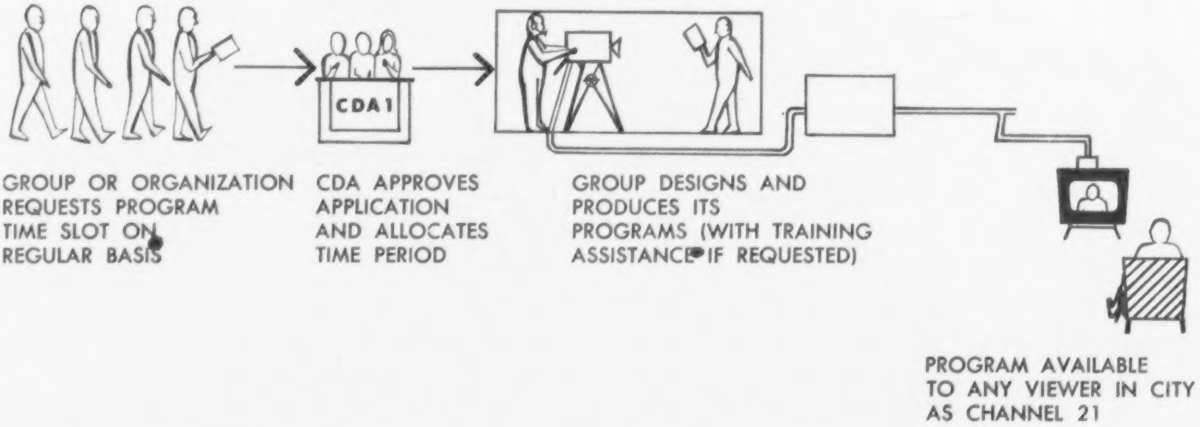
RECOMMENDATION:

4. THAT THE OPERATOR OF THE CABLE SYSTEM PROVIDE, WITHOUT CHARGE, LINKAGE FROM THE PRODUCTION FACILITIES OF EDUCATIONAL AND MUNICIPAL INSTITUTIONS TO THE TRANSMISSION FACILITIES OF THE CABLE SYSTEM.

The Committee envisions that the educational institutions, under their administrative structure, and the municipal institutions, through a special city department or another administrative body, may develop their own production facilities. This may be necessary because each of these groups is responsible for programming of separate channels whereas other groups and organizations in the community will be sharing time on the community or public access channels.

Our educational and municipal institutions are agencies that serve the public. The city should insure that their programming have access to the system through appropriate linkages without additional financial burden on these institutions. The extent that they are involved in programming will increase to the subscriber the services, information, and value of cable as a communication system. The operator of the cable system should provide the links from the production facilities to the cable system.

PROGRAMMING ACCESS


CDA 1
GROUP OR ORGANIZATION REQUESTS PROGRAM TIME SLOT ON REGULAR BASIS
CDA APPROVES APPLICATION AND ALLOCATES TIME PERIOD
GROUP DESIGNS AND PRODUCES ITS PROGRAMS (WITH TRAINING ASSISTANCE IF REQUESTED)
PROGRAM AVAILABLE TO ANY VIEWER IN CITY AS CHANNEL 21

SIMILAR PROCEDURES ARE APPLICABLE FOR CHANNELS OPERATED BY CCB, PA ADM, OR FOR THAT MATTER, FOR CHANNELS LEASED BY SYSTEM OPERATOR TO OTHERS.

PROGRAMMING ON MUNICIPAL AND EDUCATIONAL CHANNELS WILL BE ORIGINATED BY ADMINISTRATIONS OPERATING THOSE CHANNELS, USUALLY BY PARTICIPATING CITY OR EDUCATIONAL INSTITUTIONS, RESPECTIVELY.

CDA — CABLE DISTRICT ADMINISTRATION
CCB — COMMUNITY CABLE BOARD
PA ADM — PUBLIC ACCESS (CHANNELS) ADMINISTRATION

2. VIEWER ACCESS

RECOMMENDATION:

1. THAT SUBSCRIBERS IN ANY CABLE DISTRICT BE ABLE TO VIEW ALL CHANNELS WITHIN THE CITY'S CABLE SYSTEM, EXCEPT FOR CERTAIN SPECIFIED PURPOSES WHICH MAY BE AUTHORIZED BY THE CABLE SYSTEM AUTHORITY. SUCH PURPOSES SHOULD INCLUDE TRAFFIC SURVEILLANCE, FIRE PROTECTION, AND PROFESSIONAL, TECHNICAL AND COMMERCIAL CONFERENCES.

If Detroit's cable system is to serve to heighten community consciousness and to lead to an interchange of information, ideas, and creativity among the various groups of Detroit, it is essential that all cable channels be available to all viewers, no matter in what portion of the City or cable district they reside. In making this recommendation, the Committee recognizes there is a cost involved. It is possible, technically, to set up multiple uses of the same channel in different areas through separate "hub" systems for each area. Thus, a particular channel could be programmed at the same time with different programs in different areas of the city. If reception of a particular channel were limited to those subscribers in that cable district, the channel would be free for other programming, in the other districts. Quite possibly this alternative programming on community and public access channels would be more relevant, for example, to the citizens of southwest Detroit than the programming produced by a cable district in northeast Detroit. Yet, it is the fervent hope of this Committee that cable television will become a means for the various communities in Detroit to talk to each other and — more importantly — to start to listen to one another. Limiting the reception of community or public access channels in accordance with cable districts would instead tend to further fragment our city.

No longer do racial or ethnic groups live confined in a small area. No longer do people with like interests necessarily live in proximity. A high school basketball game, on the east side, for example, would be of interest not only to those people who live near the high school, but also to relatives of players who live on the west side, to the southside high school which is going to play the team next week, and to other people, scattered around the city, who simply enjoy basketball as entertainment. Similarly, it is hoped that the experience and exposure on community channels will enable some groups to develop a professionalism and expertise that will attract community-wide viewers: a well-done play, puppet show or concert could easily draw attention purely on the basis of merit, not geography.

We think it apparent, therefore, that city-wide access to viewing more channels must be available to all districts. The Committee, however, does recognize that there might well be certain instances where privacy among cable users must be assured. A channel devoted to supervising traffic flow or monitoring an area for fires should logically be restricted to the government agency involved. If a business firm leases time on a channel for a sales conference with area managers, it will want to be assured its competitors are not listening. If a group of physicians is using cable time for continuing education in new techniques of medicine, their messages can properly be limited to other doctors.

The Committee recommends, however, that each exception to the rule of system-wide viewer access must be authorized specifically by the cable system authority. The exceptions should be kept to a minimum. For the sake of improved intra-city communications, open access to any channel on the system must be the norm.

RECOMMENDATION:

2. THAT ACCESS TO THE CABLE SYSTEM BE AVAILABLE TO EVERY PERSON IN THE CITY WISHING TO SUBSCRIBE, ON A NON-DISCRIMINATORY BASIS, AND WITHIN A REASONABLE AND SPECIFIED PERIOD OF TIME.

Because a cable system will provide a variety of services in addition to better reception and increased entertainment, the Committee is concerned that such services be offered to the widest number of households at the earliest possible time. Clearly, anyone wishing to subscribe must be permitted to do so. Concerns over equal treatment of all areas of the City with regard to rapid construction of the system were dealt with earlier. (See Section II, CONSTRUCTION.) Naturally, viewer access requires installation of feeder cables from which house drops may be made. This also means a specified construction schedule backed up with performance bonds.

Any system operator will obviously seek to install that system which will provide the greatest immediate return. In attempting to determine how that return can be generated, the choice may be between affluent sections of the city, where the modest monthly subscriber fee will not represent a burden to the household — and a high initial rate of penetration can be expected — and the less affluent areas, where the cost may well be a financial burden to the subscriber. But, experience demonstrates a higher and more densely concentrated number of households will eventually subscribe because of limited leisure/recreational choices. Regardless of such economic considerations, no section of the city should receive preference in the cable system's construction schedule. A construction schedule should be required that delineates the system's installation in a number of areas simultaneously and full installation in the shortest feasible time. It is not assumed that the system will wish to deny any potential subscriber access to the system, since obviously, the highest number of subscribers is desirable. Nevertheless, it should be explicit that the system operator offer service to any potential subscriber requesting it, as the construction schedule approved by the Council makes such service available. Such a position does not prohibit the operator from discontinuing service for non-payment of subscriber fees or other legitimate considerations.

In some cities there has been a reluctance on the part of multiple dwelling landlords to allow the installation of cable unless the operator pays an added fee to the property owner. The effect of this action has been the denial or at least delay of service for those tenants.

One of the New York franchise holders has two methods of dealing with this problem:

A. If the property owner retains the right to withdraw his approval of the cable installation at any time, the cable operator will remove all equipment when requested to do so. The landlord does not receive any fee from the system operator.

B. If the property owner will allow the cable operator three years of operation in his building, he will receive five percent of the gross revenue generated within that building. In New York, the city government, through the franchise, cannot grant a right-of-way onto private property. It becomes necessary, therefore, for the cable operator to negotiate separately with each property owner. If a special public authority is the system operator in Detroit it could be granted condemnation power for the necessary easements. Implementation might be cumbersome or inordinately expensive, however. Fortunately, multiple unit housing and high rise buildings are scarcer in Detroit. Whether there is a sufficient legal basis for preventing this "toll" by landlords through lawsuits or through Council action should also be explored.

RECOMMENDATION:

3. THAT THE CABLE SYSTEM AUTHORITY DEVELOP AN APPROPRIATE MECHANISM TO PERMIT ACCESS TO VIEWING FOR LOW-INCOME FAMILIES.

The regulation of installation and subscriber rates is an important factor in any system. It is not only of concern to the operator who seeks to maximize his return, but is equally important to the subscriber who seeks the most service at the least cost. Of particular concern to the Committee has been consideration for those to whom even a $5 per month subscriber fee would be burdensome. This group includes the low income family, the public assistance recipient and the senior citizen, all of whom are perhaps most dependent upon television as a source of information and entertainment. The public service, educational and community services anticipated as part of the system will be extremely important to such potential viewers. If they are to avail themselves of cable services, some adjustment in the rate structure will be needed. Whether such an adjustment should involve a flat-rate reduction or a percentage reduction based on household income was a determination the Committee was unable to make at this time. To provide for them should be a matter high on the agenda of the cable system authority.

RECOMMENDATION:

4. THAT THE OPERATOR OF THE CABLE SYSTEM PROVIDE, WITHOUT CHARGE, DROPS TO HOSPITALS, SCHOOLS (PUBLIC AND PRIVATE), PUBLIC HOUSING, PRISONS, JAILS, MENTAL INSTITUTIONS, REFORM SCHOOLS, POLICE AND FIRE STATIONS, AND SIMILAR PUBLIC AND PRIVATE INSTITUTIONS; THAT DROPS BE LOCATED AS PER SPECIFICATION BY SUCH INSTITUTIONS.

In keeping with the Committee's definition of cable as a valuable communications medium, it is important to maximize the system's service outlets at the time of initial installation. There are certain types of institutions which should be "hooked-up" to the system without charge. Since the cable system is designed to serve the public interest, institutions such as police and fire stations, mental institutions, jails, etc., should have "drops" which would allow residents of these institutions to view what is on the cable system. Schools, both public and private, will be such integral users of cable that it is mandatory that they be provided drops in order that they have access to the system. In the long run, provision of such access will expand the use of and the interest in the cable system.

It has been the experience of other cities that the requirement of a drop to a public institution does not guarantee the installation of that connection at a convenient, or even useful, location. The Committee, therefore, recommends that the institution being served be given the option of designating the location of its connection to the system.

VI. REVENUE

1. SOURCES OF REVENUE

This section will attempt to put in broad outline the economic and financial variables related to a cable system for the City of Detroit.

These rough projections were developed assuming a dual or two-cable system with channel capacity of about 40 and possessing 13 local antenna and broadcasting facilities. They apply to Detroit the per unit costs of more thorough studies in other cities.

This section is based on eight separate seven-year projections of profit and loss and cash flow statements. (See Appendix for Charts.) There are four different subscription saturation percentages assumed for two different construction costs per cable mile, a higher one (High — $10,000 per cable mile) and a lower one (Low — $8,000 per cable mile). The first is an extremely conservative figure and the latter about what other cities' studies have used for urban areas. Thus, for instance, 40%-High refers to the seven-year projection of revenues and costs of a cable system costing $10,000 per cable mile and have an eventual subscription rate of 40%.

The large number of projections is due to the uncertainty of crystal ball gazing, both in terms of costs and revenues, and reflects the basis for the Committee's urging for detailed and more precise projections. For the same reason, there is a pessimistic bias in many of the assumptions made. For instance, the necessary number of cable miles is estimated at 2,790, which is the number of paved street miles in the City of Detroit. This can be taken as an upper limit as it is quite possible that certain streets can be bypassed in a cable system. Also, in terms of the cost per cable mile, conservative estimates were used. Cost figures as low as $6,500 per mile have been used for analogous areas elsewhere but the figure of $8,000 as a lower limit was felt to be more realistic for Detroit.

Also, with each profit and loss, cash flow projection, more detailed cost and revenue breakdown are given for the eight models.

The projections are in the Appendix. A description of each item and the assumptions made regarding it follow here.

A. GROSS REVENUE

There are two kinds of revenue which will accrue to a cable system. The first is a one-time revenue which is the amount paid for a housing unit to be hooked-up to the cable feeder line. This was estimated at $10.00 per subscriber. The second and primary source of revenue is the rental charge for the cable system which is estimated at $5.00 per month or $60.00 per year per subscriber.

Assumptions made in the projections are (1) there are 190 households per cable mile. This was arrived at by dividing the total number of housing units in Detroit according to the 1970 United States Census (530,100) by the number of projected cable miles (2,790). (2) A household can begin subscribing to a cable system the year after construction is completed **in the area.** (3) The first year after cable is available, households will subscribe at such a rate that by the end of the year the projected saturation level is reached. For example, if the projected saturation level is 30%, on January 1 no one will be subscribing, on July 1, 15% will be subscribing, and on December 31, 30% will be subscribing. (4) Once a household is signed up, it will not drop the system.

With these assumptions, maximum revenue will be reached in the seventh year. The analysis does not allow for business hook-ups which could account for a significant source of subscriber revenues.

B. OPERATING EXPENSES

This is the projected cost of maintenance and administration. This was assumed to be 15% of the existing capital so that this reaches its maximum by the fifth year. Significantly, **no estimate of programming costs** are included, nor are costs of obtaining programming, advertising or subscriptions.

C. INTEREST EXPENSES

It was assumed that the whole of the capital costs would be financed by bonding at a 5% interest rate. This is the rate which could be expected on a 15-year, non-taxable, municipal bond.

D. DEPRECIATION

It was assumed that the capital would be depreciated over 15 years, straight line.

E. FUNDS COMMITTED

It was assumed that the money needed for building the system for any given year would be borrowed at the beginning of that year. These are the funds received from the selling of bonds.

F. CAPITAL ASSET COSTS

1. Cable Feeder Lines

This is the cost of the coaxial cable itself, amplifiers which are needed periodically along the lines in order to maintain signal strength, and their placement along the streets. As was stated previously, there are two estimates, one of $8,000 per cable mile and the second of $10,000 per cable mile. A 5% rate of inflation was also assumed. Thus, what in the first year cost $8,000, in the fifth year cost $9,724. For the $10,000 estimate costs rose to $12,155 in the fifth year. The number of necessary cable miles was estimated at 2,800 — 2,680 above ground and 120 underground. The underground lines were estimated at $11,000 per mile and we assumed that they would be laid entirely in the first year.

For the aerial cable it was assumed the construction would occur over five years so that 534 miles would be laid each year.

A third type of cable, trunk cable, is that connecting the local antenna and broadcasting facilities with the master control facility. This would be triple cable capable of return transmission and it was assumed that 100 miles would be necessary or an average of 7.7 miles for each of the 13 local facilities. The cost of this type was estimated at $13,000 per mile with the inflation factor raising the cost to $15,801 in the fifth year.

2. Master Antenna and Control Facility

This is the main antenna and switching station. It is here that programs originating in one of the local broadcast centers would be sent to other local systems, either selectively or collectively. The estimated cost is $100,000.

3. Local Antennas

Because of the inevitable deterioration of signals as they are amplified over the line, more than one antenna will be necessary to provide the entire city with clear reception. Thirteen such antennas are assumed to be necessary. The cost of each antenna is estimated at $40,000 with inflation raising the cost to $48,620 in five years. Also assumed is that three such facilities will be built each of the first four years with the last built the fifth year.

4. Local Broadcasting

These are studio facilities for local orientation production. This includes such equipment as cameras, lights, and lens but does not include building nor land costs. Estimated cost is $220,000 each with the inflation factor raising the cost to $267,411 after five years.

5. Subscriber Capital

This is what may be called variable capital. It is the capital expenditures which will vary with the degree of subscription. There are two types. The first is the cost of the hook-up of the house from the cable trunk line. This is estimated at $25 per subscriber. The second is the cost of the signal converters which will be necessary for an ordinary television to pick up the proposed 40 stations. This is estimated at $30 per unit.

6. Working Capital

Working capital is best described as cash-on-hand at the end of the year. Negative figures appear quite frequently in the tables which in reality would mean the firm must go out of business. The negative figures can be interpreted as the amount of subsidy or extra borrowing which would be needed. As can be seen, some estimates result in this deficit eventually being paid off, some result in an ever-expanding deficit.

One final note is necessary. None of our estimates include the fees for bond retirement. It is an unavoidable and large expense but no compatible nor obvious method of handling this item was devised and it was not included.

2. REVENUE DISTRIBUTION

RECOMMENDATION:

1. THAT PROGRAMMING COSTS FOR EDUCATIONAL, MUNICIPAL, COMMUNITY AND PUBLIC ACCESS CHANNELS BE AT LEAST PARTIALLY SUPPORTED THROUGH ALLOCATION OF FUNDS FROM GROSS REVENUES BASED UPON A FORMULA TO BE DEVELOPED BY THE COUNCIL OR REGULATORY AGENCY.

Speculation about the enormous revenue to be generated by a Detroit cable TV system has ranged from zero profit for the first ten years to an almost immediate $8 to $15 million annually. While it is true that the cash flow for the operation will be relatively large, it is also true that the initial capital investment will create a heavy burden of debt repayment and servicing. Further, there will be significant programming and operational costs. Clearly, the system must attempt to meet all expenses and investment costs at the earliest moment. In projecting the income of the system, the Committee in a preliminary (and admittedly very rough) analysis was unable to foresee a break-even situation earlier than seven years after initial installation and then only if the system is able to achieve over 45 percent penetration rate.

Nonetheless, even before the cable system begins to make a profit, there are certain public services that the Committee believes must be established at the inception of the system. While we recognize that the system operators will seek to minimize costs to accord with available revenues, we believe that the importance of insuring these public services requires treating these costs during the start up period as if they were capital costs. For, in effect, they are. Community programming, for example, may be very significant in providing a subscriber base. Secondly, such programming reflects the essential communications function the system can perform and which justifies the public involvement in the system's development.

Providing facilities for community originated programming must be recognized as an initial cost of operating in the City of Detroit. On the day that the first section of cable system is capable of providing service to any subscriber, it would be highly important that the community programming capacity should be a part of that service. Likewise, public access channels must be made available at the outset. It is expected that not only will such community programming attract subscribers, but also these programs will serve the interests of the subscribers. It will give them both variety and diversification of programming that otherwise would not be available. Thus, such programming costs, at least in part, are valid expenses to be paid for out of subscriber fees and other revenues from the system.

Although we are equally concerned with the inclusion of the capacity for educational and municipal channels in the system, we are less concerned that these channels initially be utilized. The educational community is already heavily involved in television programming and related activities. While it is well known that both the municipality and the various educational institutions need additional funds, the Committee does not believe that either are so totally without resources as to necessitate further burdening a fledgling cable system with the obligation to provide totally free service including programming costs on these channels. (The Federal Communications Commission, however, does require that one free governmental and one free educational channel be provided for the first five years of a cable system's operations.) On the other hand, the system operator should be required to provide at least a minimal amount of technical and financial assistance for the operation of such channels.

As reflected above, there are many variables relating to the costs of community programming. It was beyond the competence of the Committee to make even calculated estimates of such costs. The early part of this section dealt with sources of revenue, and it indicated the difficulty in securing firm data as to amounts of income available for community programming. We are convinced that such community programming costs should be heavily underwritten out of system revenues. Experience in other communities where only meager efforts at community programming have been attempted, discloses that both for quantity and quality of such programming, an adequate revenue base from the system is indispensible for this to happen. To afford the opportunity for community programming without providing some financial base for it, is tantamount to insuring it will not happen.

For these reasons the formula for allocating funds from the revenues to be used for such purposes needs to be developed by either the Common Council or the proposed cable authority. It is important that funds come from gross rather than net revenues, whatever percentage is determined, since otherwise there may be a temptation for the system operator to limit the allocation by manipulation of expenses. In fact, other than setting a flat amount for programming support on these channels, a percentage of gross seems best adapted to assure a financial base is available.

RECOMMENDATION:

2. THAT CABLE REGULATORY ACTIVITIES BE SUPPORTED BY THE CABLE SYSTEM THROUGH ALLOCATION OF A SUFFICIENT PORTION OF SYSTEM REVENUES.

It is appropriate that any costs which the City may incur for regulation of the cable system should be paid for by the system. The financial plight of the municipal government should not be additionally burdened by the introduction of cable television. Should any operator other than the recommended public authority be granted a franchise, a franchise fee, payable at the time of the grant of authority to operate, as well as a portion of the revenues, would be an appropriate means of funding the regulatory activities by the City.

RECOMMENDATION:

3. THAT REVENUES REMAINING AFTER EXPENSES BE ALLOCATED BY THE SPECIAL PUBLIC AUTHORITY OR CABLE AUTHORITY TO A FUND FOR REDUCING SUBSCRIBER COSTS, IMPROVING SYSTEM CAPABILITY, SUPPORTING ADDITIONAL COMMUNITY, MUNICIPAL, EDUCATIONAL AND PUBLIC PROGRAMMING COSTS. THAT IF FURTHER REVENUES REMAIN, SUCH REVENUES SHALL BE GIVEN TO THE CITY AFTER SUFFICIENT RESERVES ARE ESTABLISHED FOR CAPITAL IMPROVEMENTS.

The Committee believes that some time in the future, perhaps as soon as five years after the installation of a cable system, significant revenue will be generated by non-video and subsidiary uses of the system, uses such as data and facsimile transmission and closed circuit programming. As this revenue develops, the primary concerns of the Committee are:

1. That subscriber rates be kept extremely low;
2. That the system itself be continuously improved to incorporate the most advanced technological features practicable;
3. That additional funds be devoted to the programming which can never be expected to become fully self-supporting, i.e., community, public, municipal and educational programming.

It would be only after these primary and fundamental needs that directly relate to an efficient and adequate development of cable as a communication system are met, that then any additional revenues should inure to the city.

3. ADVERTISING

RECOMMENDATION:

1. THAT IN ORDER TO INCREASE FINANCIAL SUPPORT FOR LOCAL PROGRAMMING, ADVERTISING BE PERMITTED ON COMMUNITY CHANNELS: THAT ADVERTISING BE DIVORCED FROM PROGRAM CONTENT AND PRODUCTION ON COMMUNITY CHANNELS.
2. THAT REVENUES FROM ALL ADVERTISNG ON COMMUNITY CHANNELS GO TO SUPPORT PROGRAMMING COSTS FOR COMMUNITY CHANNELS: THESE REVENUES TO BE DEPOSITED WITH THE COMMUNITY CABLE BOARD FOR ALLOCATION ON A FAIR AND EQUITABLE BASIS. (THESE FUNDS WILL SUPPLEMENT ANY REVENUES FROM THE TOTAL SYSTEM WHICH ARE TO BE ALLOCATED TO COMMUNITY CHANNELS FOR PURPOSES OF FINANCING LOCAL PRODUCTION COSTS.)

Except on those channels which are commercially oriented — over-the-air broadcast and commercial cable channels — the Committee would have preferred to eliminate advertising. We recognize, however, the need for considerable funds to provide quality community programming and the potential for community groups and other to raise funds by permitting limited advertising, divorced from program content. Also, the potential exists for small advertisers to have access to the medium on channels identified with and primarily viewed by the area they serve.

The bulk of advertising revenue generated by these channels should be pooled to provide funds for allocation to community groups to cover their production costs. If a community group would wish to to provide programming that costs more than the funds allocated through the Cable District Administration, it too should be entitled to solicit limited advertising. We anticipate that through these additional revenue sources the quality and production values on community channels will be enhanced.

RECOMMENDATION:

3. THAT THE COMMUNITY CABLE BOARD ESTABLISH A SCHEDULE OF ADVERTISING RATES AS WELL AS A PROCEDURE FOR ALLOCATION OF ADVERTISING TIME ON COMMUNITY CHANNELS TO GUARANTEE MAXIMUM ACCESS TO SUCH TIME FOR BOTH SMALL AND LARGE ADVERTISERS.

To equitably handle the problem of rates and time allocations for the advertising to be permitted, we strongly recommend that standards be developed by the Community Cable Board. These standards would include the rates to be charged the advertisers, the times at which advertising can appear and the total amount of programming time which can be devoted to advertising.

RECOMMENDATION:

4. THAT ADEQUATE FREE PUBLIC SERVICE TIME BE SET ASIDE FOR POLITICAL ISSUES AND CANDIDATES ON PUBLIC ACCESS CHANNELS; NO PAID POLITICAL ADVERTISING SHALL BE PERMITTED ON THESE CHANNELS. THE USE OF COMMUNITY CHANNELS FOR SUCH PURPOSES SHALL BE LEFT TO THE DISCRETION OF CABLE DISTRICT ADMINISTRATIONS.

Political advertising for various candidates rarely informs the electorate or illuminates the issues. The FCC requires and the Committee recommends that such advertising not be allowed on public access channels. On the other hand, free exchange and full debate between competing candidates and relating to issues which the electorate must decide are of great service. Sufficient time for such discussion has rarely been available to well qualified but poorly financed candidates. Therefore, we have recommended that adequate free time be made available to all qualified candidates. In addition, as a part of serving community interest and need, adequate opportunity should be available and free time afforded for adequate presentation of political and community issues. The format for the presentation of such issues can be varied. The public access channels with city-wide responsibilities, are the unique forum for this community service. The determination of what constitutes adequate free time and when it shall be made available are matters which can be decided by those boards which will administer the community and public access channels. We have elsewhere recommended that administrative review procedures be established to assure that such decisions are not made in a capricious or arbitrary manner.

VII. REGULATION

In the broadest sense, this entire report deals with the regulation of cable television. That is, nearly all the recommendations are concerned with how government, particularly the City of Detroit, can shape the new medium in the public interest. This section of the report, however, will be limited primarily to a discussion of the regulatory background for the City's efforts. This will include a survey of existing powers, regulatory programs and intentions at both the federal and state levels and the City's powers and limitations under existing law. A final part of this section will address the issue of inter-connectability of cable systems in the State of Michigan.

1. FEDERAL REGULATION

Historically, federal regulation of cable television defies generalization. In the industry's infancy, the FCC took the position that it lacked jurisdiction over the new medium. However, as cable grew and broadcast television interests perceived threats to their well-being, the Commission found ways to regulate cable even though there was no new grant of powers from Congress. At first, this regulation took the form of restrictions on cable's use of microwave to import distant signals. Soon, jurisdiction was extended to all use of broadcast signals, whether imported via microwave or not. Still later, the Commission began to indirectly regulate cable through its control over telephone companies seeking to provide cable distribution facilities. More recent exercises of control, relying less obviously on the FCC's jurisdiction over related communications forms, have encountered difficulties in the lower federal courts.

The focus of the FCC's regulation of cable has also shifted over the years. Until recently, most regulations were clearly designed to protect existing broadcast interests. This was particularly apparent with respect to rules adopted after a 1968 Supreme Court ruling that a cable system's retransmission of broadcast signals was not covered by existing copyright laws. However, as the cable television industry grew and the potential of cable became more widely known, the Commission's emphasis began shifting toward accommodation between competing interests. As recently stated by FCC Chairman Dean Burch, the objective has become "to find a way of opening up cable's potential to serve the public without at the same time undermining the foundation of the existing over-the-air broadcast structure."

The FCC's basic grant of powers is the Communications Act of 1934, and the Act has never been amended expressly to cover cable television. Moreover, the Act specifies detailed regulatory powers only for "common carriers" and radio. However, the Act charges the FCC with the broad responsibility

> of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient nationwide, and world wide wire and radio communication service with adequate facilities at reasonable charges . . .

Furthermore, the Act applies "to all interstate and foreign communications by wire or radio."

In spite of the FCC's seeming broad grant of powers under the 1934 Act, a 1959 Commission report took the position that the FCC's jurisdiction over cable was questionable. However, in 1962 the FCC refused to license a microwave common carrier's construction of a system to relay distant signals to a cable system operator unless the operator would agree to carry local broadcast programs and not duplicate programs carried by the local station. The Commission's refusal was upheld in the lower federal courts and the same conditions were later imposed by administrative rule on all cable systems importing distant signals via microwave.

In 1966, the FCC extended its asserted jurisdiction to all cable systems, whether or not they were served by microwave radio. In addition to imposing carriage and non-duplication rules similar to those adopted earlier for microwave-served systems, the FCC moved directly to stem the importation of distant signals: no distant signals could be imported without an FCC waiver or an FCC hearing and a determination that importation would be in the public interest. And virtually no waivers or favorable public hearing decisions were made for cable systems in the major television markets. The FCC's assertion of jurisdiction over cable systems to the extent of this 1966 rule-making was upheld by the Supreme Court in 1968.

Following another 1968 Supreme Court decision, holding that a cable system's retransmission of broadcast material was not covered by copyright laws, the Commission "liberalized" its rules relating to importation of distant signals. The new rules required cable systems operating in an area served by a broadcast station to secure program-by-program "retransmission consent" from distant stations. Moreover, under a later FCC interpretation, a valid consent required that the station have full authority to convey the copyright owner's interest in the program, an authority broadcasters generally do not acquire. As might have been expected, few transmission consents have been obtained.

The Commission also moved in 1968 to regulate cable indirectly through its control over telephone companies. An FCC decision held that a certificate of public convenience and necessity pursuant to section 214 of the Communications Act must be obtained by a telephone company before constructing or operating cable system distribution facilities. This decision was later upheld in the lower federal courts.

Prior to 1969, federal regulation of cable had been primarily concerned with protecting the existing broadcast industry. However, in that year the Commission issued its first ruling concerned with the very nature of cable service apart from its effect on broadcast stations. This ruling, permitting cable systems to originate programming and sell commercials, became effective in 1971. The ruling further **required** systems with 3,500 or more subscribers to originate a significant amount of programming, but in May 1971 a lower federal court held this requirement beyond the FCC's power. The Commission's petition for Supreme Court review has been granted, and the Court is expected to hear the case before the end of its current term. (Although the FCC at one time suspended operation of the challenged rule pending the outcome in the Supreme Court, the rule has been reinstated in the Commission's most recent rule-making.)

In the past two years, the FCC has intensified its rule-making efforts relating to cable television. In addition to promulgating rules prohibiting cross-ownership between cable systems and television stations, television networks and telephone companies, the Commission issued a series of proposals and held extensive hearings on a wide range of subjects pertaining to cable. Then, in August 1971, the Commission outlined its plans for the "near-term" regulation of cable in a "letter of intent" to Congress. Subsequently, the White House Office of Telecommunications Policy "sponsored" a "consensus agreement" among major broadcast, cable and copyright interests relating to broadcast signal carriage by cable systems. The FCC's new rules for cable television service were issued February 3, 1972; although the "consensus agreement" departed somewhat from the Commission's August 1971 "letter of intent," it was nonetheless incorporated.

The FCC's new rules, which went into effect March 31, 1972, deal with four general areas: (1) television broadcast signal carriage; (2) nonbroadcast channels (access); (3) technical standards; and (4) federal-state/local division of regulatory jurisdiction. In addition, rules are included relating to "origination cablecasting," per-program or per-channel charges for reception of cablecasts and diversification of control. The Commission also issued proposed rules for carriage of sports events and radio signals.

In the television broadcast signal area, the Commission will apply the following rules to the top 50 markets (including Detroit). First, each cable system may carry (or will be required to carry upon request) the signals of all broadcast stations licensed to communities within 35 miles of the cable system's community. Second, the system may (or if asked, must) carry all other signals which have "significant" over-the-air viewing in the cable system's community. Third, the system will be required to provide a minimum service of three network stations and three independents; and if this cannot be achieved by the foregoing carriage rules, distant signals may be imported to make up the difference. Fourth, a cable system may import two additional independent distant signals, less those imported to achieve the required minimum service. The selection of distant independent signals is governed by the following "leapfrogging" rule: The signals of any independent station may be carried; however, if signals are selected from stations in the top 25 markets, the signals must be taken from one or both of the two closest such markets. For Detroit, this would apparently limit the choice to the Cleveland and Pittsburgh markets.

An exception to the leapfrogging rule is made, however, where signals on the regularly carried independent stations must be deleted because of "exclusivity" requirements; in this situation, the system may carry the signal of any other television broadcast station consistent with "exclusivity" rules. Fifth, a cable system may carry (or will be required to carry upon request) all educational stations within 35 miles and those that place a grade B contour (measure of signal quality) over any part of the cable system's community. Additionally, the system may carry the signals of all educational stations operated by an agency of the state within which the cable system is located. And the signals of any other educational station may be carried in the absence of objection by local educational stations or a state or local "television authority." Sixth, as a general rule, signals of non-English language stations may be imported without restrictions.

A cable system's right to carry broadcast signals under the new rules will be circumscribed by certain "program exclusivity" provisions. With respect to network programming, a cable system will be prohibited from simultaneously duplicating the programming of stations having a "priority" on the system. For this purpose, "priority" will be determined by signal strength in the system's market; the greater the signal strength, the higher the priority. Systems operating in the top 50 television markets will also be governed by exclusivity rules for "syndicated" programming, defined as

> Any program sold, licensed, distributed or offered to television station licensees in more than one market within the United States for non-interconnected (i.e., non-network) television broadcast exhibiting but not including live presentations.

These rules are: First, upon notice by the copyright holder, a cable system may not carry a program via a distant signal "for a period of one year from the date that program is first licensed or sold as a syndicated program to a television station in the United States for television broadcast exhibition." Second, upon notice by a local broadcast station with exclusive broadcast exhibition rights (both over-the-air and by cable), a cable system may not carry a program via a distant signal for the duration of the exclusive contract. The rules provide no limitation on the duration of these contracts, and existing contracts are presumed exclusive.

A cable system's rights to carry broadcast signals as well as non-broadcast signals would be further limited by the Commission's proposed rules relating to sports programming. Purporting to embody the spirit of federal law approving agreements providing for television blackouts of games in the home territory of a team when it is playing at home, the proposed rules would prohibit a cable system from carrying any professional baseball, basketball, football or hockey game when the home team is playing a game of the same sport at home unless the system has the consent of the home team and its league or the event is available on a local television broadcast station.

Another proposed Commission rule relates to carriage of AM and FM radio signals. Under the proposed rule, cable systems carrying distant AM or FM signals would be required, on request, to carry all local AM or FM stations, respectively. Additionally, a system carrying a local radio signal would be required to carry all local signals of the same type.

The FCC's new rules governing non-broadcast channels, access, and local origination are grouped under the general heading of cablecasting. The reinstated origination requirement would prohibit systems with 3,500 or more subscribers from carrying television broadcast signals "unless the system also operates to a significant extent as a local outlet by origination cablecasting." Automated services, e.g., time, weather, would not satisfy the requirement. The rules further require that the channel or channels designated for origination cablecasting be used for no other purpose. "The "equal time" and "fairness" doctrines would apply, and transmission of lotteries and obscenity would be prohibited. Advertising would be permitted only "at the beginning and conclusion of each such program and at natural intermissions or breaks." Sponsor identification would be required.

Per-program or per-channel charges for reception of cablecasts would be governed by the following: In general, the rules prohibit charging for cablecasts of feature films which "have had general release in theatres anywhere in the United States more than two (2) years prior to their cablecast." Similarly, the cablecast of sports events would be prohibited where the events "have been televised live on a non-subscription, regular basis in the community during the two (2) years preceding their proposed telecast." Cablecast of "series type[s] of programs with inter-connected plot or substantially the same cast of principal characters" would be prohibited outright. Finally, combined programming of feature films and sports events would be limited to 90 percent of total cablecast time.

Access to non-broadcast channels will be governed by the following. All new systems in the top 100 markets will be required to provide at least one non-broadcast channel for each broadcast signal carried. In no event, however, will a system be permitted to have less than 20 channels available for immediate or potential use. Also, systems will be required to have the technical capacity for non-voice return communications.

Each cable system will be required to allocate channels for certain public purposes. These will include one free public access channel, one channel for educational use and one for local government use. Use of the education and government channels is to be free for five years after completion of the basic trunk line; the FCC then will decide whether to expand or curtail free channel use for these purposes. The cable operator will be required to maintain at least minimal production facilities for use of the public access channel within the franchise area; however, the Commission indicated that it does not want free uses to constitute an unreasonable economic burden on the system operator or subscriber and therefore requires only use of the cable channel to be free. Production costs, except for live studio presentations not exceeding five minutes, may be charged to the user. Additionally, the new rules prohibit state or local governments from designating other channels for particular uses. However, the Commission will entertain petitions to authorize additional channel assignments on an experimental basis.

All channels not used for transmitting broadcast signals or assigned to origination cablecasting, public access, education or government uses are to be available for lease by the operator on either a part-time or full-time basis. Should the demand for time on the public access, education, government and leased channels exceed a certain percentage of available time, the operator will be required to make an additional channel available within six months.

The FCC's new rules seem to preempt state and local regulation of channels used for non-broadcast services except those channels designated for governmental use. Specifically, the rules provide that

> Except on specific authorization, or with respect to operation of the local government access channel, no local entity shall prescribe any other rules concerning the number or manner of operation of access channels . . .

This means that, absent a specific authorization from the FCC, local governments must leave it to the cable system operator to decide whether or not to exceed FCC minimum requirements for assignment of access channels. Moreover, the new rules provide that the cable system (rather than local governmental entity) shall establish operating rules for the access channels consistent with FCC requirements.

The Commission will require that the system establish rules for operation of the access channels as follows: For public access, education and leased channels, the rules shall prohibit the presentation of lottery information and obscene or indecent matter. For public access and educational channels, presentation of any advertising "designed to promote the sale of commercial products or services (including advertising by or on behalf of candidates for public office)" shall be prohibited. For public access and leased channels, access shall be on a first-come, non-discriminatory basis. Finally, for leased channels, sponsor identification shall be required and an "appropriate" rate schedule specified. Other than the foregoing, the system will be prohibited from exercising any control over program content for public access, education, governmental and leased channels.

In connection with the regulation of access channels, the Commission indicates that it will encourage experimentation in such areas as neighborhood origination centers, mobile communications centers and neighborhood councils to oversee access channels. However, it seems fair to assume that where such "experimentation" takes the form of requirements imposed by the franchising authority which will result in significant added costs for the cable system operator, Commission approval will be required.

The Commission has promulgated technical standards only for carriage of over-the-air television broadcast signals. These standards, which are minimal, include the following: performance tests to assure satisfactory system operation; compatibility between signals and television broadcast receivers; permissible amplitude for power frequency hum; signal to interference ratios; terminal isolation; and radiation. In addition, the cable system operator will be made responsible jointly with the subscriber for receiver-generated interference. The Commission indicates that these minimal standards will be augmented as soon as possible with standards for: (1) receivers designed specifically for use with cable systems; (2) frequency allocations within cable networks; (3) carriage of other than over-the-air television broadcast signals; (4) carriage of aural broadcast programming; and (5) various performance requirements such as cross-modulation and "ghosting." No role in setting technical standards is indicated for state and local governments.

The FCC's August 1971 letter of intent dealt at length with the Commission's view of appropriate federal-state/local relationships in regulating cable television. Federal regulation was said to be "clearly indicated in such areas as signals carried, technical standards, program origination, cross-ownership of cable and other media, and equal employment opportunities." On the other hand, local governments were said to be "markedly involved" because cable requires easements over public ways, and because local authorities are in a better position to parcel out cable districts and follow up on service complaints. Thus, the Commission envisioned leaving a number of areas to local regulation, including franchising, but specifying minimum requirements for the franchising process. Federal licensing was rejected on grounds that it "would place an unmangeable burden on the Commission."

The FCC's recent decision closely parallels the earlier letter of intent. The control over the franchising process will be effected by requiring that the cable system, before commencing operations with broadcast signals, file a copy of its franchise and certify that the franchising authority has held a public hearing to consider the system operator's character and legal, technical and financial qualifications and the adequacy and feasibility of construction arrangements. The Commission did not issue rules for franchise selection, but "expect[s]": (1) public invitation to bid to all prospective franchisees; (2) public disclosure of all bids; (3) public hearing with adequate notice to all interested parties and (4) public report of the basis for decision.

The specific substantive franchise considerations addressed by the Commission's new rules are franchise areas, economic discrimination, construction timetable, franchise duration, subscriber rates, service and franchise fees. Decisions as to franchise areas or districts were said to be matters for local authorities. However, the franchising authority must require that service be extended equitably and reasonably to all parts of the franchise area; economic discrimination will not be permitted. The establishment of a construction timetable was apparently considered a dual responsibility. The rules require that the franchise call for "significant construction" within one year after the Commission grants a certificate of compliance and that the annual rate of extension of energized trunk cable be "substantial." A rate of 20 percent per year, beginning one year after the certificate of compliance is issued, was suggested, but the rate was said to be the responsibility of local authorities. Similarly, the franchise duration was left to the franchising authority with only the requirement that it be of "reasonable duration"; the Commission suggested a maximum of 15 years and noted support for shorter franchise periods.

The franchising authority will be required to specify or approve initial subscriber rates and provide for review and adjustment of rates, including public notice and hearings affording due process. The appropriate standard was said to be "rates that are fair to the system and to the subscribing public."

As noted above, the FCC has set and intends to set further technical standards. However, the new rules require that the franchisee specify "procedures for the investigation and resolution of all complaints regarding the quality of service, equipment malfunctions, and similar matters . . ."

Franchise fees are likely to be a subject of continuing controversy between the FCC and local governments. The Commission's recent decision strongly disapproves of the use of such fees for revenue raising purposes, reasoning that high fees would be a regressive tax on subscribers and could frustrate the federal goal of an integrated, national communications program. Instead, the Commission indicates that it will limit franchise fees to the level necessary to support the local regulatory program. Although a limitation of two percent of gross revenues had previously been proposed, the new rules require only that the fee be "reasonable." A range of three to five percent was said to be reasonable; however, where the fee exceeds three percent, the franchisee will be required to demonstrate that the fee does not interfere with effectuation of federal goals and the franchising authority will be required to make a showing that the fee is appropriate in light of its responsibilities and planned regulatory program.

Finally, the new rules require that any amendments to the FCC's franchise standards be reflected in franchises within one year after the amendment's adoption or at the time of franchise renewal, whichever occurs first.

The section of the new rules dealing with diversification of control is largely a restatement of previously adopted rules: Cross-ownership is prohibited between cable systems and national television networks, television broadcast stations serving all or part of cable system's service area and television translator stations licensed to the cable system's community. The Commission had earlier proposed rules dealing with cross-ownership between cable systems and radio stations and cable and newspapers and multiple ownership. The decision indicates that these proposals will be considered in a separate proceeding.

One further section of the new rules deserves comment. This section, titled "Special Relief," provides that upon petition by any interested party, "the Commission may waive any provision of the rules relating to cable television systems, [or] impose additional or different requirements . . ." The petition must demonstrate "the need for the relief requested and . . . support a determination that a grant of such relief would serve the public interest."

One other development at the federal level should be noted. In September 1971 the FCC rendered a decision in the **Comtel** case which could have important consequences for local franchising authorities in their efforts to regulate cable television. As discussed above, telephone companies sometimes furnish the distribution system for cable television signal transmission under tariffs (schedules of rates and service conditions) filed with the FCC; and since 1968 these "leased services" have been subject to the certification provisions of the Communications Act. Cable system operators, however, have often taken the position that a "leased services" arrangement exempts them from local franchising requirements because the telephone company already has a "state franchise" and is simply using its existing easements to install the cable distribution system. This position has, in effect, been upheld by the Michigan Public Service Commission and at least one Michigan circuit court. And prior to the FCC's decision, the New York State courts had reached the same result in a case involving the **Comtel** parties. However, in the **Comtel** decision, the FCC refused to grant a certificate of necessity and convenience to New York Telephone to allow it to provide service to **Comtel** in New York City. The decision was based first on the Commission's finding that the services for **Comtel** would be a wasteful duplication since the **Comtel** cable would in part duplicate the system of a City-franchised operator and consume already-limited conduit space. The Commission further observed that it was not in the public interest to allow **Comtel** to avoid local franchise requirements. Whether the lack of a local franchise, in itself, would be sufficient to compel denial of certification was left open. However, the Commission's reliance in its new rules on the local franchising process strongly suggests an affirmative answer.

2. STATE REGULATION

A. IN GENERAL

A recent decision by a three-judge federal district court, affirmed by the Supreme Court, makes clear that states have broad powers to regulate cable television. In the **TV Pix** case, several cable system operators sought an injunction against enforcement of a Nevada statute regulating the systems as public utilities. Plaintiff's three arguments — that the statute placed an unconstitutional burden on interstate commerce, that the field of regulation had been preempted by federal law, and that the state regulation deprived them of property without due process — were all rejected. The Court found, instead, that neither the commerce clause of the Constitution nor any Congressional action taken under it had preempted state regulation of cable television. Moreover, the Court found the state statute not in conflict with due process guarantees, but rather a reasonable, non-discriminatory exercise of a state's powers to protect its citizens.

While the continuing validity of the **TV Pix** decision with respect to federal preemption depends on future actions of Congress and the FCC, the states undoubtedly have had and continue to have broad powers to regulate cable television. However, few states have exercised those powers. Public service commissions in Wyoming, California and Illinois have asserted jurisdiction over cable television under existing law; however, the Wyoming and California commissions have been reversed in the state courts. Since 1963, the legislatures in only five other states — Connecticut, Nevada, Rhode Island, Vermont and Hawaii — have brought cable television under their utilities commissions. In general, cable systems in these states are subject to public utility type regulations; for example, certificates of convenience and necessity are required to begin operation and some form of rate control is imposed.

B. MICHIGAN

State involvement in cable television regulation in Michigan has been largely non-existent.

Three bills calling for regulation by the Public Service Commission (MPSC) have been introduced in the Legislature but died in Committee. Apparently the Commission's only brush with the subject came as a result of efforts in 1966 by the City of Jackson to prevent a non-franchised cable system from operating in that community via a distribution system owned by Michigan Bell Telephone Company. At that time, Bell had on file with the Commission a tariff for cable television "leased services," and the tariff specified that cable systems using the services "shall comply with applicable laws and shall obtain franchises and permits as so required." (A tariff for these services was later filed with the FCC and the state tariff was withdrawn.) In a decision implying that it lacked jurisdiction over cable television **per se,** the Commission held that Bell could provide cable signal distribution services to a customer (the cable system) without a franchise, and ordered that language implying the contrary be deleted from the tariff.

The question of whether the MPSC could assert jurisdiction over cable television under existing law is far from settled. Like the FCC, the MPSC's grant of powers from the legislative branch takes the form of a section stating powers and duties in general terms followed by other sections detailing powers over particular public services. Unlike the FCC, however, the MPSC acquired its powers both in the form of a specific statute creating the agency and the transfer to it, intact, of powers held by its predecessor agencies — the Public Utilities Commission and Railroad Commission.

The MPSC's basic grant of jurisdiction, section 6 of Public Act No. 3 of 1939, amended, vests it with

> complete power and jurisdiction to regulate **all public utilities** in the state except any municipally owned utility and except as otherwise restricted by law . . . to regulate all rates, fares, charges, services, rules, conditions of service and all other matters pertaining to the formation, operation or direction of such public utilities . . . to hear and pass upon all matters pertaining to or necessary or incident to such regulation of all public utilities including . . . all public transportation and **communication agencies** other than railroads and railroad companies. (emphasis added)

While the jurisdictional grants to the Commission's predecessor agencies were all reasonably specific and none could fairly be read to include cable television, the above section, taken from the Act creating the Commission, seems to say that communication agencies or public communication agencies are public utilities within the Commission's jurisdiction. Whether a cable television system is a public communication agency for purposes of the Act is not answered by the legislative history or Michigan case law. However, several states and the federal district court in **TV Pix** have found that a cable system is a "business affected with a public interest and may properly be treated as a public utility." This conclusion seems justified on two grounds: the special privileges conferred on a cable system by governmental franchise; and cable's attributes of natural monopoly. Finally, any notion that the section quoted above is not an affirmative grant of power but a mere recital of powers to be searched for elsewhere is dispelled by both the legislative history and a recent decision of the Michigan Supreme Court. During the legislative process, the section of the bill in question was amended to include the exemption for railroads. This was done to limit the MPSC's powers over railroads to those possessed by its predecessor agencies. Also, a recent Michigan Supreme Court decision repudiates language in an earlier case suggesting that the quoted jurisdictional statement is only an "outline of jurisdiction" rather than an affirmative grant of powers.

To summarize, the MPSC could probably successfully assert jurisdiction over cable television in the State of Michigan. It should be noted, however, that the Commission's jurisdictional grant expressly exempts municipally owned utilities. Furthermore, the Commission to date has shown no interest in asserting jurisdiction; however, it is thought to be re-evaluating its position and a statement of intent may be forthcoming in the near future.

Some movement in terms of state legislation has occurred recently. House Bill No. 5811 has been introduced in the Michigan House. It would give the Michigan Public Service Commission (MPSC) jurisdiction over cable television in the State. Construction or operation of a cable system without a permit from the MPSC would be prohibited, and the bill, expressly or implicitly, would require Commission approval of the following: (1) applicant's "citizenship, character, and financial, technical or other qualifications"; (2) rates to be charged; (3) services to be offered; (4) service area; and (5) construction schedule. The applicant would be required to disclose the identity of the "principals," "beneficial owners," "true" ownership of facilities, and sources of funds. In addition, the applicant would be required to submit a performance bond to insure satisfactory and timely completion of construction.

The bill gives the MPSC few standards on what to base issuance or denial of a permit. The only specified service requirement is that the applicant provide cable drops at reduced rates to educational institutions within the service area. Otherwise, the Commission is directed to issue a permit "when it is convinced that it is in the public interest to do so," considering such factors as: (1) "public need for the proposed service"; (2) the applicant's "suitability" and ability "to perform efficiently" and "offer services at a reasonable cost to subscribers"; and (3) "the geography and topography of the proposed service area, and both the present operations and the planned and potential expansion of the applicant's and other CATV companies."

The Commission would be permitted to issue permits "upon terms, limitations, or conditions which it deems required for the public interest." Permits are to be nonexclusive but are to be for a period of 20 years, subject to renewal for not less than 10 nor more than 20 years. Permits would be subject to revocation on a variety of grounds, including: (1) failure to meet Commission standards for signal quality; (2) transfer of permit without Commission consent; (3) violation of terms of the permit, the Act, or Commission rules; and (4) "inability to provide CATV services at reasonable cost to the service area."

The bill apparently contemplates continuing MPSC rate regulation. Rate schedules are to be filed, and the Commission is required to "maintain surveillance over the filed rates and terms and conditions of service to insure that the rates and terms and conditions of service are fair to both the public and to the CATV company . . ."

Several points in the bill are unclear. Most importantly, the bill is not clear on the extent to which it would preempt local regulation of cable systems. Indeed, the bill is strangely silent on the relationship between State regulation and local franchising. Local regulation cannot be altogether precluded because the State Constitution grants local governments control over their public ways. However, under Michigan court decisions, the City could be left with no more than the powers to prescribe regulations for the use of the public ways and charge a commensurate "franchise fee." That is, the City would have no power to choose between competing prospective franchisees, but would be required to grant a "franchise" to any party issued a permit by the MPSC.

The bill is also unclear as to whether it applies to publicly as well as privately owned cable systems. The bill uses the term "CATV company" (or the like), defining it as "**any person** who owns, controls or operates or manages a cable television system." "Person," however, is not defined.

3. LOCAL REGULATION

A. IN GENERAL

As the foregoing discussion of state and federal regulation suggests, local governments have, by default, been most responsible for the regulation of cable television. For the most part, this regulation has been accomplished through the mechanism of the franchise — a grant allowing the cable system to use the public ways for stringing cable in exchange for the system's agreement to meet certain conditions. However, it should here be noted that some systems — reportedly 12 — are municipally owned.

Franchise grants are usually non-exclusive, are for a specific number of years, and call for payment of a franchise fee to the granting authority; but here the similarity ends. The duration of the franchise may vary from under five years to over 30. The franchise fee may range from one or two percent of gross receipts to 30 percent at the top of a sliding scale. Some franchise agreements require that certain channels be provided for public uses; most have no such requirement. A few provide some control over subscriber rates; most do not. A very few require system upgrading to keep pace with this state of the art. And fewer still provide for any form of regulatory agency to oversee operation of the system.

Local regulation of cable television via the franchise has, on occasion, been successfully attacked in the courts. Some decisions have turned on a finding that, under a particular state's laws, the would-be franchising authority simply has not been delegated powers to franchise. Other courts, shortsightedly, have failed to find a public purpose sufficient to justify regulation beyond that relating immediately to use of streets and alleys. Subscriber rate regulation has been invalidated upon a finding that cable television is not a public utility. The better view, however — and the one accepted in the **TV Pix** case affirmed by the Supreme Court — is that cable television is sufficiently affected with a public interest to support not only regulation, but regulation as a public utility.

Two further difficulties with regulation via the franchise relate to telephone company ownership of the distribution system and to fees based on a percentage of gross receipts. As noted above, some cable system operators have attempted to avoid local franchising requirements when leasing "services" (the cable distribution system) from telephone companies. The rationale given is that the telephone company already has a "state franchise" and transmission of cable signals is within the scope of that franchise and does not add any new burden to the telephone company's existing easements to use the public ways. This argument has been accepted by a Louisiana appellate court and the highest courts of New York and Maine; in Michigan, a like rationale has been approved by at least one trial court and, by implication, by the Michigan Public Service Commission. However, as noted in the discussion of federal regulation, the FCC's September 1971 **Comtel** decision may reverse this result. And although **Comtel** can be read for the limited proposition that federal certification will be denied phone companies only where the proposed service will result in "wasteful duplication," such a narrow reading seems unreasonable — especially in light of the necessary role contemplated for local authorities in the FCC's new rules.

Although franchise fees are commonly based on a percentage of gross receipts, the Federal Court of Appeals for the Sixth Circuit (which embraces Michigan) recently held that such an arrangement amounted to a gross receipts tax imposing an unconstitutional burden on interstate commerce. The decision was unclear as to whether the defect was due to some peculiarity of the franchise ordinance or whether any fee based on gross receipts was invalid. The latter interpretation is questionable given the fact that cable systems' revenue sources are usually limited to a single state. Nevertheless, the decision was followed without question by the Federal District Court for the Western District of Michigan in a decision invalidating a Lansing franchise. A draft revised Lansing ordinance seeks to avoid the problem by basing the franchise fee on an annual fixed dollar amount for each subscriber. However, it should be sufficient simply to limit the fee to gross receipts from sources within the state.

B. DETROIT

The City of Detroit's powers to franchise and regulate or own a cable television system derive basically from the Michigan Constitution, the Home Rule Act and the Detroit City Charter. Each provides certain general grants of power which serve as a point of departure for analysis of powers to perform specific acts.

The powers of local governments derive in the first instance from article 7 of the 1963 Michigan Constitution. Section 22 of that article empowers cities to adopt and amend a charter and provides that a city "shall have power to adopt resolutions and ordinances **relating to its municipal concerns,** property and government, subject to the constitution and law." The section goes on to add an important rule of construction: "No enumeration of powers granted to cities . . . in this constitution shall limit or restrict the general grant of authority conferred by this section." This rule is reinforced by section 34 of the same article: "The provisions of this constitution and law concerning . . . cities shall be liberally construed in their favor."

The Home Rule Act provides for the incorporation of cities and sets forth a number of mandatory and permissible charter provisions and limitations on the powers of cities. Section 4j(3) of the Act empowers each city to provide, by charter,

> [f]or the exercise of all municipal powers . . . in the administration of the municipal government, whether such powers be expressly enumerated or not; [and] for any act to advance the interests of the city, the good government and prosperity of the municipality and its inhabitants and through its regularly constituted authority to pass all laws and ordinances relating to its municipal concerns subject to the constitution and general laws of this state.

Moreover, the Act has been interpreted by the Michigan Supreme Court to confer upon cities exclusive rights in the conduct of local affairs not in conflict with the Constitution or general laws.

The Charter of the City of Detroit, title I, chapter 1, section 1, provides that the City "shall have, exercise and enjoy such powers as are conferred by the Constitution and laws of the State of Michigan and this Charter." The Common Council, in turn, is empowered by title III, chapter 1, section 12(d), to enact ordinances to implement the powers conferred and "to promote the general peace, health, safety, welfare and good government of the City." The power to promote these values is generally described as the "police power," and the Michigan Supreme Court has found that the police power of Detroit, as a home-rule City, is of the same general scope and nature as the State, except where limited by the Constitution or by statute.

1. POWERS TO FRANCHISE AND REGULATE

A municipality's powers to directly regulate an enterprise such as a cable television system and to regulate that same enterprise via a franchise are two very different things. Indeed, regulation via a franchise is not, strictly speaking, regulation at all but rather is a contract between the municipality and the franchisee. Put another way, the franchise is a bilateral arrangement while regulation is a unilateral exercise of the municipality's police powers. And a municipality's powers over cable television will vary depending on the regulatory course chosen.

The Michigan courts, like those in most if not all other jurisdictions, characterize the franchise as a contract. In this contract, the franchisee agrees to provide certain services in exchange for the right to use the public ways. In Michigan, the right of local governments to control their public ways is guaranteed by the Constitution. Article VII, section 29 prohibits public utilities from using public ways without the municipality's consent and from transacting local business without obtaining a franchise. In more general terms, the section reserves to local governments "reasonable control" over their public ways except where the Constitution provides otherwise. Similarly, the Home Rule Act permits each city to provide by charter for the use of its public ways. And title VII, chapter 1 of the Detroit Charter provides that the Common Council shall have general control of all entities operating public utilities via the public ways of the City.

Control via the franchise is not without limitations. First, article 7, section 30 of the Michigan Constitution prohibits a franchise period greater than 30 years. This, however, should present no difficulty since estimates of the time required for cable television plant amortization are generally far less than 30 years. Indeed, the FCC's new rules suggest a 15-year maximum franchise duration.

Second, the Constitution, article 7, section 25, provides that:

> No city or village shall acquire any public utility furnishing light, heat or power, or grant any public utility franchise which is not subject to revocation at the will of the city or village, unless the proposition shall first have been approved by three-fifths of the electors voting thereon.

On its face, this section raises the question of whether the franchise voter-approval limitation applies to all public utilities or only those furnishing light, heat or power. And if the former, the further question of whether cable television is a public utility is presented. The Michigan Supreme Court, however, seems to have held that voter approval is required, at most, only for acquisition or franchise of utilities furnishing water, light, heat, power and transportation. This is the import of a decision interpreting a similar section of the 1908 Michigan Constitution. At that time, the section under discussion included no enumeration of utilities, but the Court reasoned that the limitation applied only to those utilities specified in a companion section empowering cities to acquire public utilities for supplying water, light, heat, power and transportation. Although the reasoning in the decision is questionable, it would probably be controlling for present purposes. (The Michigan Attorney General was once asked to render an opinion as to whether the voter approval requirement of article C, section 25 applied to a franchise for a cable television system. He declined to do so on the grounds that a suit was pending in which the issue had been raised. The suit was later decided on other grounds.)

Third, and most important, the contractual nature of the franchise makes it a relatively inflexible control device. That is, the terms of the franchise are bargained-for and, as a general rule, any change in those terms requires renegotiation between the franchising authority and franchisee. For example, terms relating to rates and services cannot simply be revised to reflect advances in the state-of-the-art. Rather, they must be renegotiated with a party who may have little incentive to agree to reduced rates or an upgrading of services. An arbitration clause may help to break stalemates, but the result may be a less-than-satisfactory compromise of conflicting interests. In short, any unilateral attempt to alter the conditions under which service is to be furnished may be challenged as an invalid impairment of the contract (franchise). And while the Michigan decisions do make clear that a franchise does not totally disable a municipality from exercises of police power that do, in fact, affect the conditions of service, the contractual concept of the franchise predominates.

Finally, a cable system operator **may** be able to avoid the franchise altogether by resort to leasing "services" (a distribution system) from the telephone company. While appellate courts in three other jurisdictions and a Michigan trial court have found legal support for such avoidance, the outcome in Michigan is very much in doubt. First, the question is primarily one of interpretation of each individual state's laws. Second, a telephone company's so-called state franchise in Michigan, Public Act No. 129 of 1883, as amended, is limited to the "power to construct and maintain lines of wire or other material, for use in the transmission of **telephonic messages** . . ." The Michigan trial court reasoned from this that the "franchise" was for the transmission of electronic impulses, **regardless of the purpose.** The court buttressed its rationale with the observation that the transmission of cable television signals added no additional burden to the phone company's existing easement for lines and poles. However, neither line of reasoning is persuasive. Historically, the notion that "telephonic messages" included cable television signals is insupportable. And surely the Legislature's purpose was not to preclude local control of a communications medium so amenable to that form of control, especially in the absence of state regulation. Moreover, a cable system adds significantly to the burden on the phone company's existing easements. Cable requires a new, separate distribution system. This means not only additional poles and wires (cables) consuming space on existing poles and in conduits, but the installation and maintenance of the system will no doubt often disrupt use of the public ways. But even if the Michigan courts are willing to permit cable system operations to avoid local franchising requirements by leasing phone company "services," the FCC may not be. As noted above, the Commission simply may refuse to allow the phone company to provide "services" where the cable system operator lacks a local franchise.

The inflexibility and uncertainties of regulation via the franchise may lead one to inquire whether the City can simply regulate a local cable television system in the same fashion that the State Public Service Commission regulates utilities brought within its jurisdiction. Under such a regulatory model, the City would grant a cable system the right to operate in Detroit but would separately promulgate rules of service and set rates. The rules of service could be changed as often as desirable, and the cable system operator given a reasonable time to comply. The rate-making process could be triggered by petition of the cable system operator or the City regulatory agency. All proceedings, of course, would have to afford due process to the cable system operator; however, the public interest would no longer be subjected to the bargaining process of a franchise renegotiation.

Taken at face value, the powers granted to cities under the Constitution and Home Rule Act seem broad enough to support a public utilities form of local regulation. Both the Constitution and Act speak of local powers to legislate relative to "municipal concerns." Moreover, as noted above, the Michigan Supreme Court has found that Detroit's home-rule police powers are comparable to those of the State except where limited by the Constitution or by statute. Nevertheless, numerous Michigan decisions make a clear distinction between a city's power to regulate via the franchise and through an exercise of its State-delegated police power. And in its typical context for the distinction — the power to regulate rates — the courts have found cities lacking in the necessary power. The authority to fix rates is said to be a power which the Legislature can delegate to municipalities only by express terms or necessary implication; and the Legislature has done neither. The City's lack of power to directly regulate rates does not, of course, mean that it lacks power to regulate other conditions of service absent a franchise. However, many of the conditions of service recommended in this Report are so unlike traditional municipal exercise of the police power that reliance on such power would be risky at best.

To summarize, if a choice is to be made between regulation via the franchise and under the City's police power, the traditional franchise approach is preferable. The conditions which may be imposed via the franchise are limited only by contract principles (and the franchisee's willingness), and franchise inflexibility can be offset, at least in part, by renegotiation and arbitration clauses. Finally, the City's powers to franchise are well established, while regulation under the police power would be vulnerable to challenge in many areas, particularly rate-setting.

2. POWERS TO OWN

The power to own and operate a cable system is not normally thought of as a form of regulation; however, it is discussed here because it represents the most direct form of government control. In keeping with the recommendations of this Report, two alternative modes are considered: (1) ownership by the City proper; and (2) ownership by a special-purpose governmental agency spawned by the City — a special public authority.

Several constitutional provisions bear on the City of Detroit's powers to own and operate a cable television system. As noted above, article 7, section 22 of the Constitution empowers cities to adopt resolutions and ordinances relating to "municipal concerns" and provides that no enumeration of powers elsewhere in the Constitution shall limit this general power. Section 34 of the same article calls for a liberal construction of both Constitution and law in favor of cities. Against this background, section 24 of article 7 provides that

> any city . . . may acquire, own or operate . . . public service facilities for supplying water, light, heat, power, sewage disposal and transportation to the municipality and the inhabitants thereof.

Section 23 of the same article empowers cities to

> acquire, own, establish and maintain . . . parks, boulevards, cemeteries, hospitals and all works which involve the public health or safety.

The foregoing seem to provide ample Constitutional support for City ownership of a cable television system. The City, of course, acts through its resolutions and ordinances, and cable television's public service potential and natural monopoly characteristics make it clearly a "municipal concern." The enumerations of sections 22 and 23 should not be considered limitations, but rather examples of proper "municipal concerns." A cable system is certainly a public service facility similar to those enumerated, particularly transportation. Indeed, a properly developed system is a work "which involves the public health or safety."

If the constitutional provisions discussed above are not self-executing, as some Michigan decisions suggest, the Home Rule Act seems to grant ample powers for the City's ownership of a cable television system. As noted previously, section 4j(3) of the Act empowers the City to provide, by charter,

> [f]or the exercise of all municipal powers . . . whether . . . expressly enumerated or not; [and] for any act to advance the interests of the city, the good government and prosperity of the municipality and its inhabitants and through its regularly constituted authority to pass all laws and ordinances relating to its municipal concerns . . .

Under section 4e, the charter may provide for the construction of "public works, and public buildings of all kinds." Similarly, section 4f(3) provides for the construction of public utilities for supplying water, light, heat, power and transportation. Here again, however, as section 4j(3) makes clear, the enumeration should not be taken as a limitation. Thus, the Home Rule Act seems to empower a city to provide, by charter, for ownership of a cable television system. Because the Home Rule Act sections are permissive, not mandatory, the key question becomes whether the City of Detroit Charter takes advantage of the broad grants of power flowing from the Constitution and the Home Rule Act. The Charter, title I, chapter 1, section 1, provides that the City shall have the powers "conferred by the Constitution and laws of the State of Michigan and this Charter." In title III, chapter 1, section 12(d), the Common Council is empowered

> to enact ordinances to carry into effect the powers conferred . . . by the Constitution and laws of the state, to make operative the provisions of the Charter, and to promote the general peace, health, safety, welfare and good government of the city . . .

This section certainly is broad enough to encompass construction and ownership of a cable television system. Further, section 12(g) provides that the Council shall authorize the construction of "necessary works for public improvement," and section 12(u) permits the Council to acquire proerty for "public purposes." Finally, section 12(k) provides "for the construction, ownership and operation . . . of public utilities for supplying water, light, heat and power and transportation . . ."

With respect to whether or not the Charter embraces sufficient Home Rule Act powers to allow construction and ownership of a cable television system, the general language of title I, chapter 1, section 1 is ambiguous since the Charter is, in itself, a document of limitation. That is, to say that the City shall have all powers conferred by the Constitution, State law and the Charter may mean that, to the extent State law is permissive, the Council has only those powers embraced by the Charter. Title III, chapter 1, section 12(d), however, is clearer. The general language of this section seems to embrace the broad, permissive grant of powers in section 4j(3) of the Home Rule Act. And this section of the Act certainly is broad enough to encompass construction and ownership of a cable television system. Cable system ownership might also be based on charter sections 12(g) and 12(u), but only when read along with the more general provisions of section 12(d).

A further hurdle is section 12(k), providing for the construction of certain enumerated utilities. It might be argued that this section prohibits construction and ownership of a cable television system since the Charter does not expressly state that enumerations are not to be read as limitations (as does the Constitution and Home Rule Act). However, the general language of section 12(d) and the philosophy reflected in the express provisions of the Constitution and Home Rule Act repel the notion that an enumeration implies a limitation on a broad statement of Charter powers.

A final question relates to section 5(e) of the Home Rule Act, providing that no city shall have power to "engage in any business enterprise requiring an investment of money in excess of 10 cents per capita . . . unless approved by a majority of the electors voting thereon at any general or special election." (Title III, chapter 1, section 12(h) of the City of Detroit Charter contains the same prohibition except that approval by three-fifths of the voting electorate is required. The Home Rule Act requirement was originally three-fifths; the change to a simple majority was apparently intended to preempt any differing charter requirements.) If a cable television system is found to be a "business enterprise" for purposes of the Act and Charter, any City investment beyond about $150,000 would require voter approval. And since estimates of required investment far exceed $150,000, the voter approval issue is squarely presented.

A question of whether the City of Detroit is engaging in a business enterprise calling for voter approval has twice been before the Michigan Supreme Court. In the first instance, the City proposed to construct an underground parking garage; in the second, a marina. Both were found not business enterprises for purposes of the Act and Charter. If there is a common thread running through the controlling opinions, it is that if the City expends funds for a public purpose, it is not engaging in a business enterprise. Thus, if construction and operation of a cable television system is a proper "municipal concern," i.e., public purpose, it is not a "business enterprise" requiring voter approval.

The City lacks powers under existing law to create a quasi-independent, single-purpose governmental entity, i.e., special public authority, to construct, and operate a cable television system. State law provides no general grant of powers to create such entities; rather, powers are delegated to create or charter public authorities for narrowly specified purposes. For example, Public Act No. 31 of 1948 (1st Ex. Sess.), empowers a city to charter an authority "for the purpose of acquiring, enlarging, furnishing, equipping, owning, improving, operating and maintaining a building or buildings, automobile parking lots or structures and the necessary site or sites therefore." This Act and some others permit a city to charter such an authority either alone or jointly with another general purpose local governmental entity, such as another city or a county. Still other acts are limited to joint incorporation.

The City can, however, create agencies with some degree of autonomy where the City has the power to issue revenue bonds to finance projects for which the agency is responsible. This is not only possible, but necessary in order to sell revenue bonds. That is, the revenues from the agency's project must be earmarked to meet debt service and operating costs before any revenues can be used by the City for other purposes. Such an agency, however, is not a true authority for several reasons. For example, its budget, projects, contracts, etc. would still, under the Charter, be subject to Council approval. Also, its employees would be governed by Charter requirements relating to civil service.

In conclusion, this report's recommendation that a cable system be financed, constructed, owned and operated by a special public authority will require state enabling legislation. This legislation should, of course, include bonding powers required by the recommendations under part III, Financing and Construction.

3. POWERS TO REGULATE POLE ATTACHMENT CONDITIONS

The power to regulate conditions for attaching television cable to poles may seem a prosaic subject to treat along with the power to franchise, own or regulate a cable television system. However, it becomes a very important subject in light of the fact that any cable system installed in Detroit must, of economic if not aesthetic necessity, utilize existing poles in large measure. Moreover, many of these poles are owned by private utilities, including the telephone company, which has shown a propensity in other communities to charge pole attachment rates bearing little relationship to the economic cost of having an additional wire on their poles. This "windfall," in turn, is borne by the cable system subscribers.

By ordinance, the right to erect poles and string wire in Detroit requires a permit from the Department of Public Works. The Public Lighting Commission (PLC) is empowered to supervise the construction of all lines erected pursuant to the permit. But more importantly, poles are erected subject to the condition that the **PLC may authorize others to use them "upon such terms and conditions as the PLC may direct."** Thus, the City of Detroit is apparently in the fortunate position of being able to insure that pole attachment fees do not become an unreasonable economic burden on the cable system and, in turn, the subscribing public.

4. RECOMMENDED REGULATORY SYSTEM

RECOMMENDATIONS:

1. THAT THE COMMON COUNCIL GRANT AUTHORITY FOR CONSTRUCTION, OPERATION AND PROGRAMMING OF THE CABLE SYSTEM, AND APPROVE SUBSCRIBER RATES.
2. THAT OVERALL REGULATORY RESPONSIBILITY, EXCEPT FOR PROGRAMMING COMMUNITY, EDUCATIONAL, MUNICIPAL AND PUBLIC ACCESS CHANNELS, BE DELEGATED TO THE SPECIAL PUBLIC AUTHORITY. HOWEVER, IF THE OPERATING ENTITY IS NOT A SPECIAL PUBLIC AUTHORITY, THEN THE COMMON COUNCIL SHALL CREATE A CABLE AUTHORITY, OPERATING WITH REGULATORY RESPONSIBILITY, MEMBERS OF WHICH SHOULD BE CHOSEN BY THE MAYOR WITH ADVICE AND CONSENT OF COMMON COUNCIL; ALL SUCH MEMBERS SHALL BE RESIDENTS OF THE CITY OF DETROIT AND REFLECT THE MINORITY GROUP COMPOSITION OF THE POPULATION OF THE CITY.
3. THAT COMMON COUNCIL SHOULD CREATE AN APPROPRIATE CONFLICT OF INTEREST ORDINANCE REGARDING THE CABLE SYSTEM.
4. THAT THE CABLE SYSTEM AUTHORITY WILL HOLD AN ANNUAL REVIEW OF SYSTEM OPERATIONS, ESTABLISH A SYSTEM FOR HEARING GRIEVANCES CONCERNING THE OPERATION OF THE SYSTEM AND RENDER AN ANNUAL REPORT TO COMMON COUNCIL.

A common criticism of local regulation of cable television is that it begins and ends with the granting of a franchise. That is, regardless of how well the franchise was thought out, no competent agency thereafter oversees the franchisee's performance to insure that the municipality gets what it "bargained for." It is obviously impracticable for the local legislative body to assume such a role, and even where an existing agency is assigned the task, it generally lacks the necessary expertise.

This Report's primary recommendation — that the cable system be operated by a special public authority — deals with the problem of regulation in a unique way. In concept, the authority is largely self-regulating. Its directors, i.e., governing body, would be appointed by the Mayor with the advice and consent of the Common Council and would govern according to the terms of the ordinance or charter by which the authority was created. The Council would retain regulatory control only to the extent of its power to modify the authority's charter, confirm the appointment of new members as vacancies occur and set subscriber rates.

If the operating entity is not a special public authority, the problem of regulation is approached in a more conventional way. For example, if the system is owned and operated by a non-profit corporation or a private franchisee, the franchise itself becomes the primary instrument of control and regulation is limited largely to enforcement of the franchise terms and renegotiation. However, the Committee would not leave these matters to existing City agencies, but recommends instead the creation of a specialized regulatory agency. As in the case of a special public authority, the members of the regulatory agency would be appointed by the Mayor with the advice and consent of the Common Council and the Council would retain regulatory control to the extent of approving or disapproving renegotiated franchise terms (including rates) and confirming new appointments to the agency as vacancies occur.

a. SPECIAL PUBLIC AUTHORITY MODEL

Special public authorities differ from municipalities in several ways. First, they are usually created to provide a single service while municipalities have multiple responsibilities. Second, they raise capital through bond issues which must be liquidated from "user charges" for services furnished; current operating expenses also must be met out of user charges. Third, public authorities are relatively independent of the electorate and autonomous vis-a-vis local units of government which create them. However, this independence and autonomy are functions both of the state legislation which enables a local unit of government to create an authority and of the local legislation which performs that creation.

This Report's recommendation that cable television service be furnished in the City of Detroit by a special public authority will, as noted earlier, require enabling legislation. This legislation should, of course, be designed so that the City can create an authority and at the same time specify the form of cable system which it must provide. Thus, the creating ordinance or charter will not only define the structure and powers of the authority, but it will set forth the conditions of service in much the same fashion as a franchise.

The authority's responsibility for self-regulation will extend to all aspects of the cable system's operation except for programming community, educational, municipal and public access channels. In the authority's areas of responsibility, it should be required to promulgate rules to carry out the duties prescribed by its charter. These areas would include supplying channels, equipment, and facilities to agencies responsible for administering the community, educational, municipal and public access channels; making channels available to commercial users; establishing affirmative minority employment and training programs; and establishing a system for hearing grievances related to operation of the system. Under the recommendations, the authority would also be required to hold an annual review of system operations and render a report to Common Council.

One advantage commonly cited for public authorities is that separation of an entrepreneurial function from those of local government makes for more efficient operation and quicker, more imaginative, and far - sighted decision making. This relates to one of the authority's most important self-regulatory responsibilities: upgrading the system to keep pace with the state-of-the-art and anticipating future demands. Here, the authority should be limited only by the marketplace, i.e., its ability to sell bonds to finance improvements.

Under the recommended public authority model, the Council's direct regulatory role would be limited. The Council would not pass on the authority's budget or approve its projects as it does with the so-called Municipal Parking Authority (more a City department than a true authority). Instead, the Council would be limited to approving subscriber rates and annually reviewing the system's operations. Even where Council chose to exercise its reserved power to amend the authoity's charter, it could not impair the terms on which bonds previously had been sold.

Because the directors of the special public authority are somewhat removed from the political process, special care must be taken to insure that their decisions will reflect the public interest. Thus, the Committee has included recommendations relating to membership qualifications and conflict of interest. With respect to the former, the Committee recommends simply that members be City residents and that total authority membership reflect the minority group composition of the City's population. The conflict-of-interest problem could be dealt with by prohibiting any direct or indirect financial interest in transactions of the authority by members of their immediate families during their term of office and for a five-year period thereafter; violations would be subject to criminal sanctions. Transactions subject to the prohibition would include, but not be limited to, purchases of equipment, contracting for services, leasing facilities and channels, and bond sales.

b. NON-PROFIT CORPORATION AND/OR PRIVATE FRANCHISEE MODEL

In terms of regulation, non-profit corporation and private franchisee models would operate in much the same way. That is, both would provide cable television services to the City under the terms of a City-granted franchise. However, if a non-profit corporation seeks to take advantage of Internal Revenue Service Rulings conferring tax-exempt bonding status (and the State approves), it could take on somewhat the appearance of the special public authority. Nonetheless, it would conceptually still operate under a franchise from the City.

As noted above, the Committee recommends creation of a single-purpose regulatory agency with the required expertise to oversee the franchisee's performance. This agency would, in effect, be charged with enforcing the terms of the franchise. This would mean that the services to be provided by the franchisee and its relationship with those organizations responsible for community, educational and municipal programming would be subject to the agency's review to insure compliance with terms of the franchise. Additionally, the agency would keep a weather eye on factors indicating a need for franchise renegotiation, e.g., trends in demand for services, franchisee's profit, advances in the state-of-the-art. Finally, the agency would be responsible for establishing a system for hearing grievances relating to system operations and for conducting an annual review and rendering a report to the Common Council.

As with the special public authority model, the Council's direct regulatory role would be limited. For reasons mentioned earlier, the Council could not, generally, unilaterally alter the terms of the franchise. Instead, the agency would negotiate with the franchisee and Council's role would consist of approval or rejection of renegotiated terms. However, the Council would be able to shape negotiations in the first instance through its review based on the agency's annual report.

Finally, the Committee recommends the same membership qualifications and conflict of interest controls imposed on the special public authority to insure that the regulatory agency's decisions will reflect the public interest.

5. INTERCONNECTABILITY

RECOMMENDATIONS:

1. THAT THE COMMON COUNCIL REQUEST STATE LEGISLATION TO ASSURE COMPATIBILITY AND INTERCONNECTION OF ALL SYSTEMS IN EXISTING REGIONAL PLANNING DISTRICTS.
2. THAT THE CITY TAKE THE LEADERSHIP IN DEVELOPING THE INTERCONNECTABILITY OF ITS SYSTEM WITH OTHERS IN THE REGION AND IN THE STATE.

The full potential of cable will never be realized so long as each system is an island unto itself. No doubt much entertainment programming will only be economically feasible where regional or state-wide viewing is possible. The same could be said of specialized commercial programming such as televised housing multi-lists, seasonal fashion shows or new-model automobile introductions. Future services such as marketing surveys will be unnecessarily complicated if they require system-by-system origination.

The non-commercial uses of cable will similarly be hampered without regional and statewide interconnectability. Much educational and governmental-social service programming will require regional or state-wide distribution. And while programming on public access and community channels may at first be intended for a limited, local audience, this may not always be the case. Indeed, as systems throughout the region and state become interconnected, the trend could be toward inter-community programming to take advantage of the new avenues of communication opened by cable.

For all the potential benefits of interconnectability, experience elsewhere has shown that it doesn't happen if the decision is left to cable system operators. For this reason, the Committee recommends that Detroit take the lead in interconnecting its system with others in the region and State. Such interconnectability will, of course, require compatibility between systems. Moreover, interconnection between Detroit's system and those in neighboring cities does not necessarily mean direct interconnection between those systems. The Committee therefore recommends that Common Council seek State legislation to assure both compatibility and interconnection of all systems in existing regional planning districts.

VIII. ADDITIONAL SERVICES — FUTURE IMPLICATIONS

RECOMMENDATION:

1. THAT GIVEN THE SERIOUS ECONOMIC IMPACT OF PAY T.V. ON CABLE SYSTEM SUBSCRIBERS, PAY T.V. NOT BE APPROVED AT THIS TIME; THAT SUCH DECISION AWAIT THE ENGINEERING AND FINANCIAL PROJECTIONS WHICH WILL SPECIFICALLY ADDRESS THE ISSUE AS TO WHETHER PAY T.V. IS NEEDED TO MAKE THE CABLE SYSTEM ECONOMICALLY VIABLE; THAT IF PAY T.V. IS REQUIRED FOR THIS PURPOSE, THEN SUCH USES OF THE SYSTEM SHOULD BE LIMITED TO THE MINIMUM NECESSARY TO INSURE FINANCIAL VIABILITY. SIPHONING OF PROGRAMMING WHICH WOULD OTHERWISE BE AVAILABLE TO ALL SUBSCRIBERS (PARTICULARLY LOW-INCOME) SHOULD BE MINIMIZED.

Pay television is the delivery over a cable system of signals which are viewable only by those subscribers who pay an extra fee, in addition to the monthly subscription fee, on a per program or per channel basis. Pay television via the cable offers services and programming designed to meet distinct needs of subscribers and provides a means whereby specialized programming not ordinarily televised can be produced.

Because of the multiplicity of channels on a cable system, special "pay channels" could be accommodated without diminishing the level of educational, municipal, public access and community channels. At present, it appears that pay television could provide services in the following areas: entertainment, e.g., movies, sporting events, and cultural activities; business/professional programming, e.g., in-service training programs, management meetings, data transmission, and record keeping; and monitoring services, e.g., fire and burglar alarms.

It is obvious that provision of business and monitoring services are entrepreneurial in nature and must be paid for by the user. However, in the area of entertainment and sports the issue becomes somewhat ambiguous — what programs should be paid for separately and what should be included as part of programming available for the monthly cable fee?

HOW PAY TV WORKS

Pay TV operates on the premise that specialized programming can be restricted to only those viewers who have ordered it. Most pay systems include some method of scrambling or encoding the program at the transmission point and a system for unscrambling or decoding the program at the authorized subscriber's home. In most cases, the program can't be unscrambled without attaching to the television set a special converter or decoder, for which the subscriber pays. Each pay channel or program is assigned a different code. Only if the subscriber has ordered a particular program by this code will the scrambled signal be unscrambled by the converter. Some systems also include a transponder, a device which can regulate any piece of equipment which operates with an on/off control. The addition of a transponder gives the cable system the potential of sensing and operating numerous types of household equipment.

Two pay-TV arrangements are currently being utilized. Charges can be on a per-program basis, according to the "admission" bought for individual shows or a weekly or monthly basis, with the payments then allocated among pay-TV programmers according to audience patterns. The subscriber can be billed for his use of the pay-TV channel along with his regular cable fees.[15]

The Committee believes that Pay TV, like non-television uses of cable, should not be authorized by the Council at this time, due to its financial impact on many viewers and the lack of information on the need for it to make the cable system financially viable.

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[15] **A Discussion of Pay-Cable Television,** Theodore S. Ledbetter, Jr., and Susan C. Greene, Yale Journal of Law and Social Action, December 1971.

We foresee a "serious economic impact" by Pay TV on those who first have to pay simply to have viewer access to the cable system. Without adequate controls, "siphoning" will occur; i.e., much of what is available to all subscribers without payment of an additional fee will become available only on Pay TV. In that case, subscribers might end up paying a fee for the nightly news or situation comedies. The Committee fears the poor, who tend to rely on the medium for information and entertainment more than the middle class does, will find themselves having to spend disproportionate amounts of money on television to the detriment of their basic needs. And, all viewers would receive less than promised from their cable subscription.

ADVANTAGES OF PAY TV

There are often touted advantages for Pay TV. Such a system would provide an additional degree of choice to the individual viewer, particularly in making available specialized, richly varied and highly professional programs to those who are willing to pay a fee for such services. Programming is costly and, according to some experts, "pay television may be the most promising means of compensation for programming of interest to specialized audiences."[16] Pay television may also increase the financial viability of the entire cable system, because it offers a service which is attractive to the subscriber, thereby increasing subscriber penetration, and at the same time produces revenue itself. Obviously, some of the revenues from a well supported Pay TV channel could, if the City so stipulated, help support programming costs for municipal, educational, public access and community channels.

Pay television may, in the future, provide entertainment not currently available to the public at large because of 1) cost of admission, 2) difficulty in obtaining tickets, or 3) location of the event.

1. First run movies — one of the most popular uses for pay cable is for the presentation of first-run movies without commercial interruption on the home screen. This use of the system is currently being installed in several cities with sizable cable penetration.[17] An entire family can view current movies for a fee considerably lower than the price of two theater tickets and without concerns for such things as transportation or baby sitter problems.

2. Sporting events — Pay TV may offer the opportunity to present sporting events which have never before been available to television viewers. As the FCC has noted, "some cable systems currently carry the blacked out home games of sports teams to their subscribers pursuant to a contract with the team involved. Sports teams apparently enter such agreements when they are playing to capacity crowds and the number of cable subscribers would not hurt the home gate but would provide additional revenue through the sale of the cable carriage rights. In this instance, cable is performing a valuable public service to its subscribers in presenting sports programming that was previously unavailable to any television viewer."[18]

3. Specialized cultural programming — events such as opera, theater, dance and graphic arts presentations do not have mass audiences and therefore receive little exposure on television. But the promise of the mature cable system with its satellite interconnction and penetration of at least 40% by the end of this decade[19] will make possible the promotion and distribution of cultural programs originating anywhere in the country. While the number of subscribers for such programming in an individual city may be small, through interconnection, the base of support may become satisfactorily large. Indeed, in time the payment of a relatively nominal fee will allow cultural events occurring almost anywhere in the world to be available on the home screen and theaters and opera houses being built today are including facilities for cablecasting.

GUIDELINES

While the Committee does not feel that it should make specific recommendations about Pay TV at this time, it requests that the Common Council consider these aspects of Pay TV, in addition to the findings of the financial and engineering projections, before granting authority for any Pay TV uses of the system:

1. That a percentage of the gross revenues

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[16] Kestenbaum, Lionel, **Common Carrier Access to Cable Communications, Regulatory and Economic Issues,** August 1971.

[17] **Optical Systems,** Los Angeles, Jeffrey Nathenson.

[18] **FCC Letter of Intent,** August 5, 1971.

[19] **Sloan Report, Television of Abundance,** 1971.

from Pay TV be allocated to support programming costs for public access, community, municipal and educational channels, and

2. That the amount of Pay TV be regulated so as to minimize "siphoning effects" and maximize diversity of service.

In any event, a major concern of the City of Detroit and the Common Council must be to protect the rights of all viewers. To ignore the possibility of the siphoning off of a majority of programs to Pay TV is to allow the subversion of many of the beneficial aspects of cable television.

NON-TELEVISION USES

RECOMMENDATION:

1. THAT NON-TELEVISION USES OF THE CABLE SYSTEM, E.G., DATA TRANSMISSION, FACSIMILE REPRODUCTION, SHALL BE CONSIDERED BY THE COMMON COUNCIL SEPARATELY FROM ITS CONSIDERATION OF THE GRANT OF AUTHORITY TO ESTABLISH THE CABLE SYSTEM.

Assuming that the cable system installed in the City of Detroit will have limited two-way capability, services which can be available immediately include: (1) locally originated programming on educational, municipal, public access and community channels; (2) quality reception; (3) FM signals; (4) commercial channels for use by professional and business interests; (5) sports programs and new movies; (6) public opinion polling; (7) traffic surveillance; (8) shopping; and (9) reservation services. A mature cable system can accommodate an extremely large number of additional services. Many of these services are referred to as "non-television" or non-broadcast uses of the cable system, uses for other than visual transmission of entertainment or public service programs. Non-television uses of the system (made possible by the broad-band capability of cable) are considered by many to have the potential of revolutionizing the communication of business, industry, governmental and educational institutions.

As The Industrial Electronic Division of the Electronic Industries Association stated before the Federal Communications Commission, the services to be provided by broadband communications network in the late 1970's and the early 1980's will be of landmark importance. "We look upon such systems as being of 'national resources' dimensions, and the development of these resources as a national goal." The EIA stated, "we visualize new services for all our broadband communications network that, in aggregate . . . will far transcend current entertainment television via cable in importance to the American public, industry and business."

What then are these services, and at what point will they become a part of a cable system? The nature of services carried on a cable system will to some extent be a function of the "maturity" for the system. Once the system has achieved full two-way capability, computer directed switching and a network of point-to-point services, some of the possible uses might be:

A. TWO-WAY SERVICES

1. **Banking and Credit Services** — For each subscriber, banking, income tax, budget and other records could be maintained and retrieved on demand. The value of stock portfolios could be kept up to date, and other types of banking services could be performed by the system.[20]

2. **Meter Reading and Automatic Billings** — Automatic meters now available for electricity, gas and water can be adapted for use with the response terminals of a two-way cable system. These meters could be interrogated as often as desired by a central computer. Each meter response would carry with it the address of the subscriber. The central computer would store and tabulate the data received, automatically calculate monthly bills and transmit these utility bills to the subscribers via a cable facsimile printer.

3. **Selective Load Control and Load Monitoring** — refers to the use of a two-way, interactive cable system for selective control of electrical devices in homes, offices, business establishment for schools, etc. For example, a number of power companies offer special low rates to customers who are willing to use automatic connectors on the lower element of two-element electric hot water heaters during periods of other heavy power usage, thereby lessening the peak usage of power. However, with the advent of widespread use of air conditioners, washing machines, and dryers, the characteristics of daily power loads are hard to predict. Detroit Edison has recently implemented a radio system for rapid, direct control of hot water switches during peak periods to over-

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[20] **Urban Cable Systems,** an interim report, The Mitre Corporation, November 1971.

come these limitations. Automatic disconnection of various equipment controlled via a cable, would be more responsive to moment by moment power usage. The cost savings in power generation and transmission facilities can be very significant.[21]

4. **High Speed Computer Channels** — Cable channels can accommodate a wide variety of computer-related uses. This technology will allow communication between user and the computer and between computer and computer. Applications are virtually limitless.

5. **Facsimile Channels** — Information retrieval from libraries, delivery of mail, and delivery of printed media directly to the home can be accomplished on these channels.

B. POINT-TO-POINT SERVICES

Other uses will be possible with the installation of a point-to-point network, a system which can be used for direct communication in much the same fashion as the telephone. Point-to-point channels are designed to meet special needs of such users as government, educational institutions, and business organizations. Some of the uses to which such a network might be put are:

1. **Police Communications** — The broadband capability of cable may provide the means of expanding police communication at a reasonable cost. The cable network can tie together Detroit police headquarters and local precincts, the Training Academy, Wayne County Jail and Dehoco. The cable can also be used for record keeping and other data transmission. Procedures now requiring the presence of the police officer could be handled instead on the cable, making for more efficient use of police time. Lineups, for example, could be monitored from the local precincts, removing the need for the policeman or witness to travel to main headquarters.

2. **Automatic Vehicle Monitoring System** — A cable system can report the position of every member of a set of moving vehicles. There has long been a need for up-to-the-minute information on the location of service vehicles which are operating under the jurisdiction of municipal governments. In addition to public transit, police, sanitation, and fires, other functioning departments of the city government could increase their efficiency and service capabilities if a vehicle locator system could be shared among them. Some of the specific uses of this system are:

a. full-time monitoring and dispatching of police and emergency vehicles;

b. dynamic scheduling and routing of transit vehicles;

c. re-routing vehicles in emergencies, such as major fires, away from a specified area.

3. **Health Delivery Systems** — A variety of health services can be delivered on the cable. Included are: provision of service by a physician to a patient over a point-to-point hook-up; continuing follow-up care to patients recently released from hospitals; participation in disease prevention programs; transmission of health data from hospital, clinic and offices; professional conferences on medical advances; and programs for convalescents, the handicapped, etc.

These illustrations are but a few of the possibilities that cable may provide. The technology is available; the components necessary for their implementation have been developed. They are not available in quantity for implementation at this time, however. The necessary production will only begin as a number of sophisticated urban cable systems develop and the demand grows. It is difficult to speculate which of the services described here will actually become a part of the cable system in Detroit, and at what point in time. It is, however, entirely possible to predict that uses similar to these will become reality.

Anticipation of the demand for such services and the costs cannot knowledgeably be made, at this time. The Committee's concern for additional research in this area is reflected in its recommendation for financial and engineering projections. The service potential, cost benefits, and revenue potential must be analyzed before implementation decisions can be responsibly made. To grant authority for the implementation of non-television services when the original grant of authority is made could impose inflexible constraints on the city. Further, it has been acknowledged by many industry leaders that revenues from non-television uses of the system may be the most significant financial segment of cable. To grant these rights initially would be equivalent to giving a blank check to the system operator. It is with this understanding that the Committee recommends that the initial grant of authority to establish the cable system should exclude non-television/radio uses of the cable system.

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[21] Ibid.

Additional studies in the area of non-television uses of the system have been proposed by the following: Arthur D. Little, Inc., New York; National Science Foundation, Washington, D. C.; Urban Institute, Washington, D. C.; National Laboratory of Urban Communications, Inc., Kansas City, Missouri.

IX. TECHNICAL STANDARDS

RECOMMENDATION:

1. THAT THE CITY SET THE TECHNICAL STANDARDS FOR THE CABLE SYSTEM TO INSURE THE HIGHEST POSSIBLE QUALITY OF PERFORMANCE REGARDING THE PICTURE AND SOUND TO BE DELIVERED TO SUBSCRIBERS.

Poor cable television service, service that frequently breaks down, inferior equipment or that which transmits pictures and sound of poor quality is little better than none at all. The Committee urges that Council include in any cable specifications definite technical standards for quality of performance as well as upgrading the standards as new technology develops and enforcement of these technical standards actively throughout the life of the system authorized.

Additional standards to be adhered to are an engineering matter which can be determined through the technical projections which Common Council will need to secure and which have been previously recommended. Such projections should consider the FCC rules effective March 31, 1972 as minimum requirements. In determining technical standards consideration should be given to interconnection of Detroit's cable system with other cities in the region or, via satellite, with other cities in the country. A potential cable operator might well be asked to specify possible alternative equipment that meets the standards set, the various uses and the respective costs of each alternative.

Although cable television is a technology of abundance, there are nevertheless limits on the absolute number of channels to be received by a cable. The flow of channels to a home television set (downstream communications) is limited by the total cable bandwidth, largely determined by cable amplifiers, by interference effects on some channels, and by the number of channels later needed for upstream transmission. It is also thought that use of some channels within the cable range may be proscribed as possible hazards to aircraft navigation. Further special equipment is needed for reception of more than 12 channels. At present the technical systems with options for providing more than 12 channels on the cable are:[22]

A. Multi-cable systems: two (dual) or more parallel cables are installed as feeder lines and the cable drops from the feeder line to the set through a switch which the viewer uses to select one cable at a time to be shown on his receiver. This is termed a "tree" network. The first cable carries up to 12 channels while 12 additional channels are carried on the second cable. Channel capacity is nominally 12 channels for each cable, although interference decreases this number somewhat.

Substituting a converter for the switch in the system, however, would, at a cost of $30 to $100, increase the capacity of a single cable to 21 to 25 channels, and of a dual cable to 42 to 50 channels. If the two cables are installed at the same time, the cost is about 50 percent less than for installing each cable separately.[23]

The Rand Summary estimated dual cable installation to cost only 15 percent more than single cable and with a further 15 percent investment, one of the cables can be two-way operationable.

B. Augmented channel systems: a single cable is installed with a converter attached to the television set to increase channel capacity beyond the VHF channels that normally could be received. Converter technology is now in the range of 25 to 26 channels, although it may reach 30 to 35 channels in the near future. The converters cost $30 to $50 and are attached to the television set. One kind, the tuner, operates by pushbuttons or dials; the other, the block converter, converts seven channels normally outside the VHF band to VHF frequencies with a switch determining whether the choice is made from this group or from the unconverted regular channels.

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[22] Rand, **Summary Cable Communications in the Dayton Miami Valley**, p. 9.

[23] Sloan Commission Report, **The Television of Abundance**, p. 188.

C. Switched (dial) systems: Channels are selected by remote control devices located generally in neighborhood switching centers containing the switching equipment. Only one or a few channels are actually sent along the cable to the set. To do this, all subscriber drops in a several block area must extend to some central point where the switching is performed instead of attaching to the feeder line at the nearest point. Thus, the switched system involves a radiating hub network of drops as compared to a conventional tree network. The chosen programs are sent along the cable at special low-frequencies that have low interference. The switched systems currently in use involve the Rediffusion Dial-a-Vision system, with a capacity of multiples of 36 channels. Another switched system, Discade, uses ten small coaxial cables, each with a capacity of two to four channels. A remote switching center can then provide 20 to 40 channels.

Technical standards must also deal with certain interference problems that plague cable systems. Cable's technical problems, as summarized for the Sloan Commission, are:

1. On-channel interference: interference on a subscriber's set due to direct pickup of local VHF broadcast stations.
2. Intermodulation and harmonic inteference: a misfunction of cable frequency allocations.
3. Image interference..
4. Oscillator leakage interference.
5. Adjacent channel interference.
6. CATV leakage interference with over-the-air services.

Choice of the correct technical standards will alleviate these problems. Cable equipment, including the headend, the cables, the amplifiers and the subscriber terminals, should be tested for quality before, during and at intervals after installation.

RECOMMENDATION:

2. THAT THE INITIAL INSTALLATION OF EQUIPMENT PROVIDES THE GREATEST POTENTIAL FOR MAXIMUM NUMBER OF CHANNELS AND OFFER THE GREATEST FLEXIBILITY; AND THAT EQUIPMENT INITIALLY INSTALLED HAVE DUPLEX OR TWO-WAY CAPACITY.

The future use of cable television depends to a great extent uopn the minimum channel capacity that the Common Council insists upon in setting the terms for a cable system. If a maximum potential is not provided in the beginning, it will mitigate against the full development of services that a cable system can provide in the future. In addition, it is much more economical to provide a large channel capacity in the original installation than to add more channels later. Similarly, it is both economically wise and now required by the FCC to provide for two-way communications and point-to-point networks, linking, say, all fire stations or all hospitals, from the beginning. The initial investment for a fully developed system will increase initial capital and costs. Unless a cable operator is required to provide for full services, he may well offer a minimum system that will cost less and have a greater earning capacity in earlier years but not provide sufficient services then. Later addition of adequate services will be far more expensive than providing them at the beginning.[24]

Current technology provides the opportunity for a simple two-way or duplex system. One-way is audio and visual and the return is a non-voice audio. This standard is now being required by the FCC rules that were announced in February 1972 and became effective March 31, 1972. Certainly, technology will continue to refine the possibilities of a two-way system. Eventually, it is envisioned that it will be two-way: both audio and visual. The Common Council should insist that the maximum possibility for a two-way system should be required as a technological standard when the system is ready to be installed.

In recognition of the many foreseeable and potential demands for channel space, and in recognition of the economic advantages of avoiding piecemeal installation processes, the Committee recommends that any cable system approved have a potential for a full range of cable services (see Channel Allocation), even though maximum use might not immediately be made. To do otherwise would be to limit the system unwisely, and to cause delays and economic penalties at a later time.

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[24] Rand Summary, Cable Communications in the Dayton Miami Valley, 1972.

RECOMMENDATION:

3. THAT ALL CONSTRUCTION RELATED TO CABLE INSTALLATION BE DONE IN A MANNER CONSISTENT WITH SOUND ECOLOGICAL AND AESTHETIC CONSIDERATIONS.

The Committee would prefer that cable be underground, if this is possible. There are obvious cost implications that must be balanced here. Recognizing the environmental dangers of a system that will pass by every house in the city, the Committee urges that the Council exercise a review function over cable installation and other construction, such as location of master antennas, to assure they are in accord with sound aesthetic and ecological practices.

RECOMMENDATION:

4. THAT EXISTING OVER-THE-AIR CHANNELS SHALL HAVE THE SAME CHANNEL NUMBER ON THE CABLE SYSTEM WHEREVER POSSIBLE.

It would be confusing if existing over-the-air channels had a different channel number on the cable system. For the convenience of the viewer and the encouragement of the over-the-air channels, we believe it only fair that such channels should retain their current channel numbers on the new cable system. This is not a difficult technical question to resolve.

This recommendation does not mean that the frequency at which a signal is carried on the cable is in question. The Committee understands that it may be electronically impossible to carry each over-the-air channel at its broadcast frequency. What we do strongly recommend is that the home viewer's cable dial indicate the same channel number as an over-the-air dial would show. The problem may be resolved with labels, not with electronics.

RECOMMENDATION:

5. THAT THE SYSTEM OPERATOR BE REQUIRED TO CONSTANTLY UPGRADE TECHNICAL FACILITIES, EQUIPMENT AND SERVICES SO THAT THE SYSTEM IS AS ADVANCED AS THE CURRENT STATE OF TECHNOLOGY WILL ALLOW.

The technology of cable television is rapidly changing. In many respects, cable is still in its infancy and can be expected to change appreciably in the next several decades. Once a system is established the temptation may be to continue to use existing technology and resist, for various reasons, innovations that would enhance the system. If cable is to serve the public, it must keep up with the most current "state of the art." There should, therefore, be appropriate requirements either in the charter or the franchise agreement that would assure that the most advanced state of the art be maintained.

One difficulty may be that in the early stages of the cable system, the initial installation will have to be fully utilized for a long period of time in order that there is amortization of the initial investment, reinforcing the Committee's recommendation that the initial installation be of the best possible quality.

X. EMPLOYMENT AND ECONOMIC DEVELOPMENT

Quite apart from the myriad community, educational, municipal and entertainment services cable television will make available to the citizens of Detroit, the advent of a cable system will mean a major new industry for the city. Unlike many other industries, this one cannot move to the suburbs; it will be primarily located within, provide service to and derive its income from within the city limits. The Committee urges that the Common Council give full consideration to the economic and employment opportunities that will be created by the granting of the authority to some entity to operate a cable system. The Committee strongly desires that these benefits be enjoyed by those citizens who will ultimately support the cable system — the residents of the City of Detroit.

RECOMMENDATIONS:

1. THAT ALL PERSONS EMPLOYED IN CONNECTION WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SYSTEM BE RESIDENTS OF THE CITY OF DETROIT, AND THAT THE WORK FORCE OF ALL ENTITIES ENGAGED IN THE CONSTRUCTION, OPERATION OR MAINTENANCE OF THE SYSTEM PROPORTIONATELY REFLECT THE RACIAL AND MINORITY GROUP COMPOSITION OF THE POPULATION OF DETROIT. THAT THOSE CONNECTED WITH THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SYSTEM BE REQUIRED TO FULFILL AFFIRMATIVELY THE EQUAL EMPLOYMENT PROVISIONS OF CITY, STATE AND FEDERAL LAW AND THAT THE WORK FORCE OF THE SYSTEM REFLECT THE RACIAL, SEXUAL AND ETHNIC GROUP COMPOSITION OF THE POPULATION OF DETROIT. THAT PERSONS NOT BE ARBITRARILY ELIMINATED FROM CONSIDERATION FOR EMPLOYMENT BECAUSE OF AGE.
2. THAT IN THE CARRYING OUT OF THE CONSTRUCTION, MAINTENANCE AND OPERATION OF THE CABLE SYSTEM, SYSTEM OPERATOR WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, CREED, COLOR, SEX, OR NATIONAL ORIGIN. THE SYSTEM OPERATOR WILL TAKE AFFIRMATIVE ACTION TO INSURE THAT APPLICANTS ARE EMPLOYED, AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT, WITHOUT REGARD TO THEIR RACE, CREED, COLOR, SEX, OR NATIONAL ORIGIN. SUCH ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: EMPLOYMENT, UPGRADING, DEMOTION OR TRANSFER, RECRUITMENT OR RECRUITMENT ADVERTISING, LAYOFF OR TERMINATION, RATES OF PAY OR OTHER FORMS OF COMPENSATION, AND SELECTION FOR TRAINING, INCLUDING APPRENTICESHIP. THE SYSTEM OPERATOR SHALL POST IN CONSPICUOUS PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES SETTING FORTH THE PROVISIONS OF THIS NON-DISCRIMINATION CLAUSE. THE SYSTEM OPERATOR SHALL, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYEES PLACED BY OR ON BEHALF OF THE SYSTEM OPERATOR STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATION FOR EMPLOYMENT WITHOUT REGARD TO RACE, CREED, COLOR, SEX, OR NATIONAL ORIGIN. THE SYSTEM OPERATOR WILL INCORPORATE THE FOREGOING REQUIREMENTS OF THIS PARAGRAPH IN ALL OF ITS CONTRACTS FOR WORK RELATIVE TO CONSTRUCTION, MAINTENANCE AND OPERATION OF THE CABLE SYSTEM AND WILL REQUIRE ALL OF ITS CONTRACTORS FOR SUCH WORK TO INCORPORATE SUCH REQUIREMENTS IN ALL SUBCONTRACTS FOR SUCH WORK.

Elsewhere we have recommended the necessity for this city to assume the leadership role in regional development of cable television. The Committee's initial concern relates principally to the system's development within the political boundaries of the City of Detroit. It is well documented that the long-term unemployment rate within the city itself is consistently much higher than that reported for the Detroit metropolitan area (tri-county). Furthermore, the historic pattern of job discrimination which many minority groups have experienced still limits their full access to employment opportunities in the Detroit area. On this basis alone the city should seek to maximize the employment potential of a cable system. To help off-set these prior patterns of discrimination the Committee felt that the system's work force should be reflective of the racial, sexual, ethnic and minority group composition of the City.

The hiring of Detroit residents for cable system jobs will have a direct and immediate effect on the revenue derived by the City from the system. This is accounted for by the differential which is enjoyed by non-residents who derive their income within the City, but who pay less than residents by way of direct income taxation.

The huge investment in capital goods (hardware) necessary to install the cable system and the large number of electronic components used in the system, promises an immediate potential for economic development. Any manufacturer who is asked to supply that equipment will have a large and continuing production operation. Not only will employees be needed to produce this equipment, but the manufacturer can be expected to need additional buildings, capital equipment and materials. The potential exists, then, for the establishment of a manufacturing facility within the city; at the very least we should look forward to assembly and finishing work being done in Detroit by Detroiters. The potential for a local entrepreneur to contract much of this work from the prime supplier of equipment would further increase the attractiveness of the system to the economy of the City.

The variety of skills to be utilized in the construction, installation, operation and maintenance of the system is extremely broad. It is not unreasonable to project that three to five hundred permanent jobs may ultimately result from the creation of a Detroit cable system; some estimates are even higher. Engineers, linemen, cable splicers, drivers and laborers will be needed in construction. Installers for homes and other facilities will be needed as will maintenance personnel to insure the cable system's proper operation. A variety of skills will be utilized in operations from management and sales to billing and clerical operations.

RECOMMENDATION:

3. IN ORDER TO HELP REDUCE THE LEVEL OF UNEMPLOYMENT AND UNDEREMPLOYMENT IN THE CITY, THE SYSTEM OPERATOR WILL, WITHIN THREE MONTHS AFTER INITIATION OF THE SYSTEM INSTALLATION, PREPARE A GENERAL OUTLINE OF AN AFFIRMATIVE ACTION PLAN DESIGNED TO TRAIN AND PROVIDE EMPLOYMENT TO QUALIFIED UNEMPLOYED AND UNDEREMPLOYED RESIDENTS OF THE CITY AT EVERY OPERATIONAL LEVEL INVOLVED IN THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE CABLE SYSTEM. THE GENERAL OUTLINE SHALL BE DRAWN UP AFTER CONSULTATION WITH ADMINISTRATORS OF THE PRINCIPAL MANPOWER PROGRAMS OF CITY AND STATE AGENCIES, AS WELL AS WITH THE SYSTEM OPERATOR'S PRINCIPAL CONTRACTORS AND SUBCONTRACTORS, AND REPRESENTATIVES OF LOCAL UNION ORGANIZATIONS.

   THE GENERAL OUTLINE OF THE AFFIRMATIVE ACTION PLAN SHALL BE SUBJECT TO THE APPROVAL OF THE COMMON COUNCIL AND, WITHIN THREE MONTHS AFTER SUCH APPROVAL, THE SYSTEM OPERATOR SHALL PREPARE A FINAL AND DETAILED PLAN WHICH SHALL ALSO BE SUBMITTED TO THE COMMON COUNCIL FOR ITS APPROVAL. ANNUALLY, THE SYSTEM OPERATOR SHALL FILE REPORTS WITH THE COUNCIL SETTING FORTH ITS ACTIVITIES UNDER THE AFFIRMATIVE ACTION PLAN AND STATING IN DETAIL ANY FAILURES TO COMPLY WITH THE PROVISIONS OF THE PLAN. THE PROVISIONS OF THE PLAN, AS APPROVED BY THE COMMON COUNCIL, WILL CONSTITUTE MATERIAL TERMS AND CONDITIONS OF ANY GRANT OF AUTHORITY TO OPERATE THE CABLE SYSTEM.

   a) THAT A SEMI-ANNUAL EMPLOYMENT CENSUS APPROPRIATE TO THE FOREGOING RECOMMENDATION SHALL BE PROVIDED TO THE MEMBERS OF THE COMMON COUNCIL SO THAT IT CAN BE DETERMINED WHETHER THEIR STANDARDS ARE BEING COMPLIED WITH.

b) THE COMMON COUNCIL SHALL PROVIDE BY ORDINANCE FOR ENFORCEMENT OF THE REQUIREMENTS OR THE FOREGOING RECOMMENDATIONS AND PENALTIES FOR THE VIOLATION THEREOF.

Just as there exists the problem of racial and economic discrimination in the use of existing media, there exists the same potential in the economic and employment opportunities generated by the cable system. We believe that equal employment opportunity in the cable system must be the subject not just of legislation and conversation, but also of significant and affirmative action.

Affirmative action must be clearly understood to include a great deal more than the passive acceptance of applications for employment. It must be understood to include the active recruitment of minority persons, through those information sources they normally utilize. It must be understood to include seeking out of skilled individuals who might not otherwise make themselves available. It must be understood to include a positive orientation to these goals by the management and particularly those who screen and place employees. The requirements, the Committee believes, should apply not only to the operating entity directly responsible for the system, but also to contractors or subcontractors to the operators. To assist in developing such affirmative steps, the Committee has recommended submission of plans by the system operator as well as periodic progress reports.

RECOMMENDATION:

4. THAT IMMEDIATELY UPON THE INITIATION OF WORK FOR INSTALLATION OF THE CABLE SYSTEM, A TRAINING PROGRAM FOR THE DEVELOPMENT OF CAREER OPPORTUNITIES FOR ALL EMPLOYEES OF THE SYSTEM OPERATOR BE ESTABLISHED BY THE SYSTEM OPERATOR. IN ADDITION, THE SYSTEM OPERATOR SHALL DEVELOP A TRAINING PROGRAM FOR THOSE PERSONS NOT EMPLOYED BY THE SYSTEM OPERATOR BUT WHO ARE INVOLVED IN PRODUCTION AND PROGRAMMING OF COMMUNITY, EDUCATIONAL, MUNICIPAL, AND PUBLIC ACCESS CHANNELS.

The system operator should have a training program for his employees to assure effective development of career opportunities in this new field. The Committee believes, too, that the cable operator must assume a major share of responsibility for insuring the effective use by the community of its access to the cable system. For this reason, we have recommended that he undertake training activities for persons to operate community channels. This should include all functions necessary for community groups to produce their own programming, such as cameramen, engineers, directors, console operators and sound men.

XI. PRIVACY

RECOMMENDATION:

1. THAT CABLE SYSTEM SUBSCRIBERS BE GRANTED, BY LAW, A RIGHT OF ACTION FOR INVASION OF THEIR PRIVACY INVOLVING THE CABLE SYSTEM, AND THAT SUCH INVASIONS OF PRIVACY ALSO BE MADE A CRIMINAL OFFENSE WITH VIOLATORS SUBJECT TO FINE AND/OR IMPRISONMENT.

Any system that creates a potential for two-way transmissions to and from each household in this city provides the basis for an invasion of the privacy of these residents. This may be the greatest danger that the citizens of Detroit will face from a cable system. It is but a short step from the wiring of the city to the kind of abuses recounted in George Orwell's "1984." The image of "Big Brother" determining the effectiveness of one's performance of his morning exercise routine as described there could easily turn to reality once most residential units are connected to a duplex cable system. At that time, arrangements for surveillance would then be technically feasible.

The only one to whom the citizen can look for protection against abuse of that system is the government. In the minds of some, however, the government may be the most tempted to improperly use this opportunity to get information. The Committee feels, nevertheless, that the best protection against abuse of the system is to provide protection for the individual by law. To assure that the protections are meaningful, it is necessary that the subscriber or his guests be granted a private right of action for invasion of their privacy by anyone, whether it be another private individual or the government itself. At the same time, the Committee urges that the government make the violation of an individual's rights of privacy involving the cable system a criminal offense with violators subject to a fine and imprisonment. Embodiment of these rights of privacy in law create the strongest statement of their importance for purposes of individual freedoms. In addition, the government will have the responsibility to bring criminal sanctions against those who violate the rights of others.

The fear of invasion of privacy is not an abstract concern for the Committee. It is raised by the temptation of some to obtain information and to use such data for control of the individual. The opportunity to do so has been created by this new technology. Even with these legal protections, violations may be difficult to determine and harder still to prove in court. The existence of the legal sanctions, however, should itself provide much needed protection.

RECOMMENDATION:

2. THAT THE CABLE SYSTEM BE DESIGNED TO PREVENT ANY DUPLEX RETURNS WITHOUT A SUBSCRIBER'S SPECIFIC PERMISSION: THAT THE SYSTEM DESIGN AND OPERATION INCORPORATE SAFEGUARDS TO PREVENT THIRD PARTIES FROM TAPPING INTO THE SYSTEM AND THEREBY INVADING A SUBSCRIBER'S PRIVACY.

As a reflection of the deep concern with which the Committee holds the potential of abuse of individual privacy through this new technology, it desires that specific attention in the technological development of the system be given to way to prevent unauthorized duplex returns. This might require that some automated record be kept of all duplex returns in such a way as to indicate whether there was subscriber permission. Although no system is fail-safe, sufficient attention should be given, in the design of the system, to preventing such abuses; this may be as important a protection as imposition of criminal penalties on violations of privacy.

The system operator, who has control of the distribution system, because of his access to that system may be in the best position to abuse his trust. But, it is equally possible that third parties could break in upon the cable system in such a way as to intrude upon a subscriber's privacy. Again, appropriate design consideration may be able to develop necessary mechanisms to prevent such encroachment on an individual's privacy. Whether it is technically feasible to do so by providing a warning to the subscriber when others are intercepting his return transmissions or, by providing adequate protections against such trespasses on the cable, itself, appropriate safeguards should be constructed.

RECOMMENDATION:

3. THAT MONITORING OF A CABLE SYSTEM SUBSCRIBER'S VIEWING HABITS WITHOUT HIS EXPRESS PERMISSION BE PRECLUDED, IF POSSIBLE, BY SYSTEM DESIGN AND PROHIBITED BY LAW. SUCH PROHIBITIONS SHALL NOT PREVENT CUMULATIVE VIEWING ANALYSES AND RESEARCH SAMPLING.

Although it is a less inviduous form of surveillance, monitoring of the viewing habits or the specific viewing of a particular program should be prevented without express permission of the subscriber. This can be accomplished by a systems design technique or by providing criminal or civil sanctions. At the same time the Committee recognizes that information about viewing habits and research sampling of programs or advertising is valuable in making appropriate programming decisions. Such information could be provided in cumulative form as to number of households without determining the individual household's viewing of particular programs. This would not seem objectionable. In allowing this exception, however, the Committee again stresses its concern with individual privacy and the need for absolute protection. It seems fairly evident that without cable such forms of surveillance would not be attempted or possible. With the availability of cable and the potential of two-way communications the possibility of such surveillance will become quite real. In the end the individual must rely upon his Government and his legal system to provide him the protection necessary. Design techniques should reduce the temptation for improper and unauthorized invasions of privacy. Further, a free and open communication system may be the greatest of protections against abuses by other individuals or even by the Government itself. Cable has a tremendous potential and only zealous concern by the citizenry will help it reach this goal. At the same time that freedom of access must be maintained, equal care must be exercised to protect cable from becoming an instrument of oppression through surveillance or monitoring.

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XIII. APPENDIX 1

OFFICE OF THE MAYOR — MILWAUKEE

January 8, 1971

To the Honorable, the Common Council
of the City of Milwaukee

Honorable Members of the Common Council:

This is to respectfully inform you that I am vetoing Common Council File Number 70-1671 which grants authority for a cable television system in our street right of way.

The point is made in "The Wired Nation" by Ralph Lee Smith that cable television meets every historic test for classification as a common carrier and for regulation as a common carrier and for regulation as a public utility. Cable systems, says Mr. Smith, "are natural and unavoidable monopolies" because "few communities need, or will support, two cable systems." I agree.

Based upon my reading of cable television's potential, those of us who have decried the loss of freedom of speech and press in the practices of the current mass communications monopoly "ain't seen nothing yet."

Computer experts tell us that, in addition to the telephone and radio and television services now available, cable television's communications center in every home of the future will offer audio, video and facsimile transmissions that will provide newspapers, mail service, banking and shopping facilities, data from libraries and other storage centers, school curricula and more. In short, it will become the most influential factor in our society. This vast potential power concentration demands all the foresight we can command.

It is shameful that we must fashion the safeguards for the future, as much as we can, in an area of human development that touches every family in the country. But, the Federal Communications Commission bobs between force-fields of dollar bills as though the publicly-owned electromagnetic spectrum, floating free in the air or canned in a wire, belongs to a relative handful rich enough to hire armies of lobbyists. And, only four states (Wisconsin is not among them) have even passed laws bringing cable systems under regulation as a utility.

In the absence of any national or state regulatory agency willing or able to protect the public interest, we certainly owe it to ourselves, our children and our children's children to try to act in our own interest and the interest of the future.

Before attempting to outline to you some of the unexplored questions which I believe ought to be examined, let me assure you that I have the utmost respect for the representatives of the current applicant. They have been even tempered, courteous and most helpful through what must have been an anxious week for them. My purpose is not to thwart this applicant, or any other, but to place before you some important, unanswered questions, the answers to which ought to be formally spelled out in a comprehensive resolution.

It may well be that members of the Council will need to inspect cable television operations in other cities. If so, I will support that. It may be that experts, such as Mr. Smith, ought to be invited to testify. If so, I will support that. You may even want to hear from members of the FCC or its staff or the Wisconsin Public Service Commission or its staff. If so, I will support that. Anything which will make our options and their consequences clear, I will support.

The following questions certainly should not be considered all encompassing. Perhaps a full deliberation will show some of them are extraneous. However, it seems to me they are all proper questions.

We are told that the applicant is Time-Life Broadcasting, Inc., a subsidiary of Time, Inc., but that it will operate through Milwaukee Cablevision, Inc., a subsidiary of a subsidiary. Who is Milwaukee Cablevision, Inc.? Who are the officers, the stockholders? What commitments has it made, and to whom, for stock options and other forms of participation in the venture? What is the nature of that relationship? What was the relationship between the applicant and two other subsidiaries, both Wisconsin corporations, for which articles of dissolution are pending before the Secretary of State? What happened to those subsidiaries and why? Why did not the offices of the applicant sign the application or furnish written support of its appointment of an agent? Why is a financial statement of Time, Inc., furnished when another corporation is the applicant?

Why are the rates indefinite for apartment buildings, hotels, motels or commercial buildings? What is an apartment building, etc.? Why is the rate indefinite for a second receiving set in the same home? Rates in other cities are substantially lower than $5.95 per month. What evidence is there to support that charge here? What percent of profit factor are we confronting? Do we want to prohibit pay TV in any form? Or establish a procedure for regulating pay TV charges?

We are asking ten percent of gross before taxes as the city's consideration. Why not a sliding scale based upon the gross as was established in Aubuquerque, New Mexico, and Modesto, California?

We are told that the Wisconsin Telephone Company has filed rates with the State Public Service Commission to accommodate installation. What, if any, will be the impact, on telephone charges? Are we creating an extension of the telephone monopoly into other fields by the arrangement in the event of default? What happens if the applicant defaults? Is it true that telephone poles can accommodate only one cable thus effectively creating the monopoly by constructing out competition?

Why is not the timetable for construction specified? Are we buying another lawsuit by approving vagueness? How many streets will be cut? Why should we proceed without knowing office and tower locations, the applicant's agreements with other utilities or the magnitude of street disruption? Where is the written agreement to conform with our policy of removing wood poles from the street? Where is the agreement that the applicant locate its taxable property within the city? If street cuts are numerous, should we re-examine our requirements for restoration of the surface? Why doesn't the resolution state an amount of public liability insurance coverage that will be furnished? Can we make it absolutely clear that all rates and charges must be approved by the Common Council? Why can't we regulate the opening of additional channels and assure in the resolution the use of some channels by the schools and city government?

As I said, the applicant has been most cooperative. Some of these questions he has offered to answer by telegram and include in the resolution by reference, at best a questionable legal procedure. It would be infinitely better to have its promise of no pay television, a channel for our schools, a channel for city government and its construction timetable incorporated in carefully completed language within a comprehensive resolution.

In order to avoid undue delay, I respectfully request that you suspend any rule which would place a time restriction upon the amendments which I am sure a full deliberation will produce.

It is a complicated decision, but few decisions with such far-reaching effects for our society and the generations to come will ever be in your hands.

Respectfully submitted,
/s/ HENRY W. MAIER
Mayor

* * *

IN MY OPINION

CATV Involves Many Complex Questions

by Mayor Henry W. Maier

January 22, 1971

When people laughed at the first automobile scaring the daylights out of the horses on Main Street, few could envision the tremendous impact of the automotive industry on the way we were to live in the years ahead.

Today many communities in the nation are in the "horseless carriage" stage of cable television (CATV), which many believe will eventually bring about a new communications revolution reaching into our homes and offices and greatly affecting our every day lives.

Eleven members of the Milwaukee Common Council this week showed their concern for the future ramifications of CATV when they upheld my veto of the application by Time-Life Broadcast, Inc., for a cable television franchise in Milwaukee.

By their action they have made it possible for the Council to consider a new CATV ordinance taking into account the many implications of cable television that have surfaced since the original ordinance was passed almost five years ago.

As I indicated, my veto was not based on a desire to thwart Time-Life or any other applicant but to raise important, unanswered questions which ought to be formally spelled out in a more comprehensive agreement.

CATV does not represent simply another entertainment media.

As Ralph Lee Smith has pointed out in his exhuastive article, "The Wired Nation": "In addition to the telephone and to the radio and television programs now available, there can come into homes and into business places audio, video and facsimile transmissions that will provide newspapers, mail service, banking and shopping facilities, data from libraries and other storage centers, school curricula and other forms of information too numerous to mention."

If its full potential is realized, it will revolutionize our society and a city without a full communications system will find its quality of life second class.

Every indication is that whoever is first in CATV in a city will enjoy a virtual monopoly since it is unlikely that homes or businesses will subscribe to two or more wired services.

As Smith has pointed out, cable television meets every historic test for classification as a common carrier and for regulation as a public utility.

Five states — Connecticut, Nevada, Rhode Island, Vermont and Hawaii — already classify CATV as a public utility and regulate its rates to subscribers. New York State's Public Service Commission has recently asked for similar authority.

Regulation by the FCC should place CATV in the position of other common carriers — such as telephone systems — with its interstate rates controlled as a public monopoly with a vast capacity for future profits.

With common carrier status, the CATV operation itself would not have control over the programs and messages sent over its wires. There would also be the likelihood of much more diversity than under present systems, greater freedom of speech, of press and of entertainment, education and business opportunities.

If CATV is to reach its full potentiality it will also require the use of two-way cables, allowing signals to travel both from and to the owner's set.

John W. Macy, Jr., President of the Corporation for Public Broadcasting, told delegates to the 1970 Congress of Cities in Atlanta that "the possibilities opened by linking such a two-way feedback system to our schools, hospitals, libraries and businesses are almost too startling to imagine. But they are a clear and present possibility."

Our present ordinance does not call for a complete plan from cable television operators indicating whether or when they will provide for these possibilities. Nor does it require a plan of construction detailing which area will be wired first, which last and by when.

Full service to the people of the city and the guarantee of fair rates may well be more important in the long run than the question of the percentage of profit that will return to the city.

In fact, the Federal Communications Commission could well make financial return to the city an academic question by adopting a proposal limiting the maximum municipal return from a franchise at two percent gross profits, a proposed rule it is now considering.

In any event, there are a number of involved questions to be considered before we give the go ahead to making Milwaukee a "wired city."

XIII. APPENDIX 2

CABLE TELEVISION AUTHORITY ENABLING ACT

AN ACT to provide for the incorporation of authorities to acquire, equip, own, improve, enlarge, operate and maintain cable television systems together with appurtenant properties and facilities necessary or convenient for the effective use thereof, for the use or benefit of any county or for the use or benefit of any county and any city or village therein, or for the use or benefit of any city, village or township; to provide for compensation of authority commissioners; to permit transfers of property to authorities; to authorize the execution of contracts, leases and subleases pertaining to authority property and the use thereof; to provide for the issuance of revenue bonds by such authorities; to validate action taken and bonds issued; and to provide other powers, rights and duties of authorities and incorporating units, including those for the disposal of authority property.

County, City, Village or Township Authorities; Incorporation, Purposes

Sec. 1. Any county, city, village or township may incorporate, as provided in this act, one or more authorities for the purpose of acquiring, equipping, owning, improving, enlarging, operating and maintaining a cable televsion system together with appurtenant properties and facilities necessary or convenient for the effective use thereof.

County and City, Township, or Village Authorities; Incorporation, Purposes

Sec. 2. Any county and any city, township or village therein, may incorporate one or more authorities for the purpose of acquiring, equipping, owning, improving, enlarging, operating and maintaining a cable television system together with appurtenant properties and facilities necessary or convenient for the effective use thereof.

Incorporating Unit Defined

Sec. 3. The term "incorporating" unit as used in this act shall be deemed to mean a county, city, village, or township incorporating an authority or joining in such incorporation.

Incorporation of Authority, Procedure

Sec. 4. The incorporation of such an authority shall be accomplished by the adoption of articles of incorporation by the legislative body of each incorporating unit. For such adoption, the affirmative vote of the majority of the members elect of each such legislative body shall be required. The articles of incorporation shall be executed for and on behalf of each incorporating unit by the following officers, to-wit: For the county, by the chairman of the board of supervisors and county clerk; for the city by its mayor and city clerk; for the village, by its president and clerk; for the township, by its supervisor and clerk. The clerk or secretary of each incorporating unit shall also affix to the articles of incorporation following the signatures thereto, a certificate in form substantially as follows:

"The foregoing articles of incorporation were adopted by the .... of the .... of .... County, Michigan, at a meeting duly held on the .... day of ...., 19 ......

Dated ...., 19......

....

(Clerk/Secretary)"

County or Municipal Cable System Authority; Articles of Incorporation Contents; Legislative Body Members Ineligible for Authority Commission

Sec. 5. The articles of incorporation shall set forth the name of such authority; the name or names of the unit or units incorporating the same; the purpose for which the authority is created; the number, terms and manner of selection of its officers including its governing body which shall be known as the "commission"; the powers and duties of the authority and of its officers; the date upon which the authority shall become effective; the name of the newspaper in which the articles of incorporation shall be published; and any other matters expedient to be incorporated therein: Provided, however, That the members of the legislative body of each incorporating unit of an authority should be ineligible to serve as officers.

Board of Commissioners; Compensation, Per Diem, Mileage

Sec. 6. Members of the commission may be paid such compensation and such per diem and mileage for attending meetings, as may be provided by the commission with the approval of the incorporating unit or units.

Articles of Incorporation; Execution, Filing, Time Effective

Sec. 7. The articles of incorporation shall be executed in duplicate and delivered to the county clerk who shall file one such duplicate in his office and the other with the recording officer of the authority when selected. The county clerk shall cause a copy of the articles of incorporation to be published once in a newspaper designated in said articles of incorporation and circulating within the county. He shall file one printed copy in his office, attached to each of which printed copies shall be his certificate setting forth that the same is a true and complete copy of the original articles of incorporation on file in his office and also the date and place of the publication thereof. Such authority shall become effective at the time provided in the articles of incorporation. The validity of such incorporation shall be conclusively presumed unless questioned in a court of competent jurisdiction within 60 days after the filing of such certified copies with the secretary of state and county clerk.

Body Corporate; Powers

Sec. 8. Such authority shall be a body corporate with power to sue and be sued in any court of this state. It shall possess all the powers necessary to carry out the purpose of its incorporation and those incident thereto. The enumeration of any powers in this act shall not be construed as a limitation upon such general powers.

Contracts to Acquire Property; Leases to Incorporating Units, Terms, Consideration; Subleases, Condition, Terms

Sec. 9. The authority and any incorporating unit or units shall have power to enter into a contract or contracts whereby the authority will acquire property contempated by the terms of this act and lease the same to the incorporating unit or units for a period not to exceed 50 years. The consideration specified in such contract for such use shall be subject to increase by the authority if necessary in order to provide funds to meet its obligations. Any rental obligation or consideration applicable to the incorporating unit or units under such contract, shall not be considered as indebtedness of the incorporating unit or units within the meaning of any statutory or charter debt limitation of such incorporating unit or units. With the consent of the authority as contained in the contract or otherwise secured, any incorporating unit or units to which the property is leased, may sublease the property or any part thereof to any one or more persons, firms or corporation or may contract for the use of the property or any part thereof by and one or more persons, firms or corporations, where the sublease or contract benefits and serves a legitimate public purpose of the sublessor. Any sublease or contract may extend for a period not to exceed 50 years and is not a franchise or grant within the meaning of any statutory or charter provision.

Acquisition of Property Condemnation

Sec. 10. For the purpose of accomplishing the objects of its incorporation the authority may acquire property by purchase, construction, lease, gift, devise or condemnation, and for the purpose of condemnation, it may proceed under the provisions of Act No. 149 of the Public Acts of 1911, as amended, being sections 213.21 to 213.41 of the Compiled Laws of 1948, or any other appropriate statute.

TRANSFER OF PROPERTY

The legislative body of any incorporating unit, by a majority vote of the members thereof, may transfer any real property except cemetery property owned by the incorporating unit to an authority established pursuant to this act.

Amendment of Articles

Sec. 11. Amendments may be made to articles of incorporation if adopted by the legislative body of each incorporating unit: Provided, that no such amendment shall impair the obligation of any bond or other contract. Any city or village which is the county seat of a county incorporating an authority under the provisions of this act, may become an incorporating unit of the authority by amendment to the articles of incorporation adopted by the legislative body of such city or village and by the legislative body of the county. Any such city or village shall thereafter be deemed to be an incorporating unit. Each amendment shall be adopted, executed and published, and certitfied printed copies filed, in the same manner as above specified for the original articles of incorporation, insofar as applicable.

Revenue, Bonds, Referendum

Sec. 12. For the purpose of acquiring, improving and enlarging any such cable television system, together with appurtenant properties and facilities necessary or convenien for the effective use thereof, and equipping the same, the authority may issue self-liquidating revenue bonds in accordance with and subject to the provisions of Act. No. 94 of the Public Acts of 1933, as amended, being sections 141.101 to 141.139 of the Compiled Laws of 1948, except that the bonds may be either serial bonds or term bonds or any combination thereof, as shall be determined by the authority. Such bonds shall be payable solely from the revenues of such property, which revenues shall be deemed to include payments made under any lease or other contract for the use of such property. Where and to the extent that the bonds are payable from revenues derived from payments to be made pursuant to any lease or other contract obligations, the bonds shall be deemed to be issued in anticipation of contract obligations and such obligations shall be deemed to be contract obligations in anticipation of which bonds are issued within the meaning of section 6 of article 9 of the constitution. No such bonds shall be issued unless the property whose revenues are pledged has been leased by the authority for a period extending beyond the last maturity of the bonds. For the purpose of section 33 of Act No. 94 of the Public Acts of 1933, the limits of the authority shall be deemed to coincide with the limits of the incorporating unit, or in the case of a joint authority organized under section 2 within the limits of the county. If a sufficient referendum petition shall be filed requesting a referendum upon the question of the issuance of revenue bonds by the authority, then such question may be submitted by the commission of the authority at any general or special election or elections to be held in the incorporating unit or units whose limits coincide with those of the authority.

Tax Exemption

Sec. 13. All property owned by any authority shall be exempt from taxation by the state or any taxing unit therein.

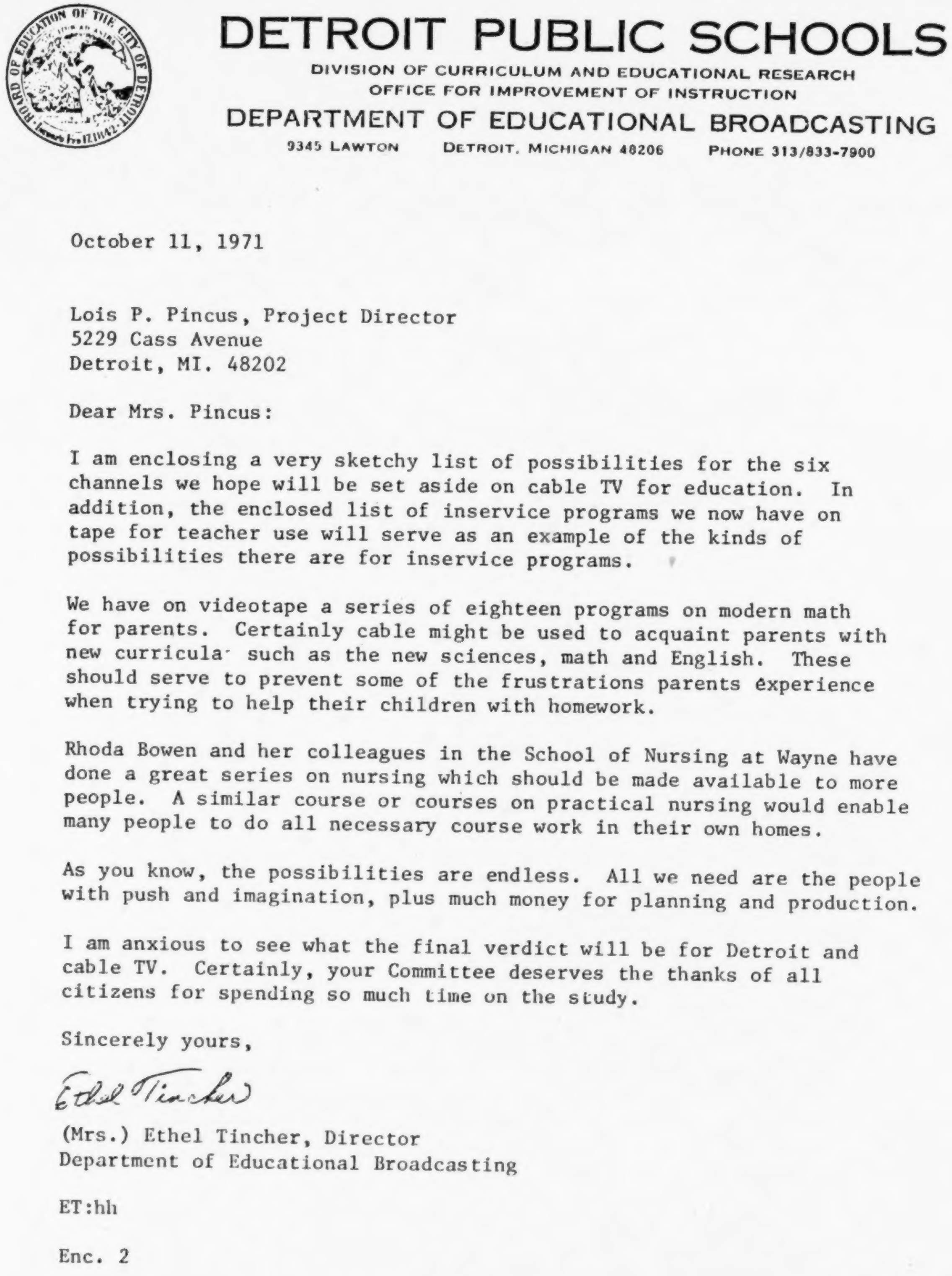
Bonds Retired, Conveyance of Property

Sec. 14. When all bonds issued pursuant to the provision of this act shall have been retired, then the authority may convey the title to the property acquired hereunder to the incorporating unit or units in accordance with the provisions therefor contained in the articles of incorporation, or, if there be no such provisions, then in accordance with the directions of the governing body of the incorporating unit or any agreement adopted by the respective governing bodies of the incorporating units.

Construction of Act

Sec. 15. The powers herein granted shall be in addition to those granted by any statute or charter.

XIII. APPENDIX 3



DETROIT PUBLIC SCHOOLS
DIVISION OF CURRICULUM AND EDUCATIONAL RESEARCH
OFFICE FOR IMPROVEMENT OF INSTRUCTION
DEPARTMENT OF EDUCATIONAL BROADCASTING
9345 LAWTON DETROIT, MICHIGAN 48206 PHONE 313/833-7900

October 11, 1971

Lois P. Pincus, Project Director
5229 Cass Avenue
Detroit, MI. 48202

Dear Mrs. Pincus:

I am enclosing a very sketchy list of possibilities for the six channels we hope will be set aside on cable TV for education. In addition, the enclosed list of inservice programs we now have on tape for teacher use will serve as an example of the kinds of possibilities there are for inservice programs.

We have on videotape a series of eighteen programs on modern math for parents. Certainly cable might be used to acquaint parents with new curricula such as the new sciences, math and English. These should serve to prevent some of the frustrations parents experience when trying to help their children with homework.

Rhoda Bowen and her colleagues in the School of Nursing at Wayne have done a great series on nursing which should be made available to more people. A similar course or courses on practical nursing would enable many people to do all necessary course work in their own homes.

As you know, the possibilities are endless. All we need are the people with push and imagination, plus much money for planning and production.

I am anxious to see what the final verdict will be for Detroit and cable TV. Certainly, your Committee deserves the thanks of all citizens for spending so much time on the study.

Sincerely yours,

Ethel Tincher

(Mrs.) Ethel Tincher, Director
Department of Educational Broadcasting

ET:hh

Enc. 2

CATV RECOMMENDATIONS

Six channels should be reserved for education. Recommend that these channels be divided as follows:

2 for elementary education

2 for secondary education

2 for adult education including in-service education and community services

Examples of the kinds of programming which should be broadcast:

Elementary

Basic skills of reading and mathematics

Science

Art and Music

Language arts, including English as a second language

Foreign languages

Secondary

Humanities

"New" Science-Mathematics

Vocational subjects

Driver training, leaving practice sessions to schools

Courses for the potential drop-out

Courses for sick and/or handicapped children confined to their homes

Adult

Inservice programs for teachers (list of programs of this nature is enclosed as a possible illustration of the kinds of things which might be done.

High school courses leading to the GED certificate. This would be a more practical extension of the kinds of programs now being telecast cooperatively by the Detroit Public Schools and Blue Shield, resulting in more than 2500 people receiving the high school equivalency certificate.

Parent Education

Courses to teach the several thousand illiterates in Detroit to read and write. The Detroit Public Schools' PROJECT READ has had significant success with this program to date. Cable television would make classes available to those who are unable to come to READ centers or who are reluctant to expose their academic deficiencies to others.

Job-Training skills

Consumer Education

English as a second language

Drug use and abuse

Advance courses for job-upgrading skills. An example of this is the present cooperative project by the Detroit Public Schools and the College of Engineering of the University of Michigan in which graduate courses in engineering are being televised both to off-campus classrooms and to business and industry in the Detroit area. Last semester, students earned more than 900 credit hours by using the television courses.

Courses such as practical nursing and medical technology would enable many more people to learn theory and rudiments, thus freeing instructors for supervision of practice sessions.

Enc.

WAYNE
COUNTY
Community
COLLEGE

4612 WOODWARD AVENUE • DETROIT, MICH 48201
TELEPHONE • 313 832-2300

October 18, 1971

Mrs. Lois Pincus, Project Director
Cable TV Study Committee
5229 Cass Avenue
Detroit, Michigan 48202

Dear Mrs. Pincus:

As an institution, Wayne County Community College has been committed to the application of improved technology to the educational process. We recognize that there are many ways in which instruction can be conducted, and that individuals respond differently to different teaching stimuli. Therefore, we support the use of all possible instructional modes. Television has long been recognized as a meaningful educational tool; Cable TV could make academic instruction even more accessible.

In keeping with our philosophy of the "open door", Wayne County Community College supports those programs intended to provide access to education. We do not provide instruction on a contained, well-defined campus. In reality, our "campus" is the entirety of the County; we now conduct classes at 25 locations all over the County. For our purposes, cable dispersed in such fashion as to permit our students the use of television in their homes, in the instructional center or at the public library in which they do research, study, or other supportive activities, would be a goal to strive for. As a consequence of strategically located Cable TV, all departments of the College could develop instructional programs designed for this medium. In addition, since it is anticipated that at some time in the near future Wayne County Community College will offer certificate programs in Mass Communications and for the Audio Visual Technology classification, the College could then provide a public service through "participation in the training of community people for purposes of local original programming".

Our support for Cable TV in Detroit is obvious. We urge that this technological advance be made available to the broadcast population possible within the area. To implement the programs noted above, two of the proposed educational channels assigned to Wayne County Community College could provide a reasonable potential for successful utilization. May we urge that your deliberations take these suggestions and our students into consideration.

Sincerely yours,

Reginald Wil

Reginald Wilson, Ph. D.
President

Eveline P. Carsman

Eveline P. Carsman
Director of Learning Resources

University of Detroit

College of Arts and Sciences 4001 W. McNichols Road, Detroit, Michigan 48221 Telephone: (313) 342-1000

October 12, 1971

Ms. Lois Pincus, Project Director
Cable T. V. Study Committee
5229 Cass Avenue
Detroit, Michigan 48202

Dear Ms. Pincus:

I am sorry that we kept missing each other in our attempts to call and return calls. I shall try to provide, though, something of a reaction to the Cable TV program that may be of use to you.

The University of Detroit, as you know, was among those who pioneered in the possible uses of television for educational and community viewing. This dates our activity back to 1950-51. Consequently, the prospects of Cable TV's availability strikes experienced and friendly ears.

Our own studios are still active, and could offer much and benefit much from production involvement. The College of Arts and Sciences is in general actively interested. As details work out and we learn of them, we will be anxious to explore where we can help most.

Sincerely,

JM/s

John Mahoney
Dean, College of Arts and Sciences

WAYNE STATE UNIVERSITY
DETROIT, MICHIGAN 48202

OFFICE OF THE PRESIDENT

March 17, 1972

Rev. James W. Bristah, Chairman
Cable T.V. Study Committee
5229 Cass Avenue
Detroit, Michigan 48202

Dear Mr. Bristah:

I am writing to you in regard to Cable T.V. System planning in Detroit.

Cable T.V. is a communication medium with great potential if used in the public interest, and Wayne State University is committed to assisting the Detroit Common Council in research, analysis, and development of a cable T.V. system. The University assures the Committee that it has both the need and the desire for numerous channels on such a cable system, and if given the opportunity, will not only utilize these channels to their fullest, but will assist any public or governmental organization in developing their uses of their channel allotments.

There exists within the University a significant body of knowledge and expertise in the production of audio, film, and television that presently uses electronic distribution systems for the faculty and student body. At present, these systems are technically and geographically limited in their ability and reach only the campus community. Two examples of the communications systems used by the University are:

1. The 2500 MH_z band (KPV - 20 Channel E-1) television distribution system which distributes lessons to specially designed and installed receiving units within a 20-mile radius. Unfortunately equipment and operational costs limit more extensive use of the educational tools we have developed. Student and public access to lesson materials via channels of a cable system would be enhanced because in general the technical and monetary problems of Cable T.V. are easier to overcome.

2. Two different dial-access systems which provide accessibility to banks of prepared learning material to students (on demand-as needed) in many subject matter areas: The present two systems (one devoted to learning of foreign languages and the other to the liberal arts) are

2. continued

only available via on-campus phone line users due to equipment and circuit limitations. However, a significant increase in utilization could be achieved if a cable T. V. channel were available for self-initiated access to the data-bank of available learning materials by an individual or group on the cable system.

Other systems, including an extensive closed-circuit TV system, which covers only the University campus, have been in intensive use for over 10 years, and radio and television productions of the University are presently being carried by cable systems in Canada, in the Port Huron-Thunder Bay area and in the Upper Peninsula of Michigan. These, however, are being received "off the air" and distributed on the cables by a simple direct pick-up with no involvement on the part of the University (except through the viewers or listeners who, quite rightly, feel a sense of intimacy with the University through the programs they receive).

If a cable system is approved for Detroit, it is imperative that citizens' desire for access to the University's learning materials and data-banks of prepared lessons should be honored. An educated citizenry is a productive citizenry.

It should be noted that Wayne State University has had many experiences and contacts with several Detroit citizens and community groups not only for the purpose of producing programs for them but also to prepare citizens to operate radio and television equipment and to produce program material of their own choosing. It has become clear that community groups need communication systems of their own not only to disseminate but also to produce material that is uniquely shaped and prepared for the specific needs of the group. The channels on the cable system required by the FCC to be dedicated for public purposes such as public access communications and education, raises certain questions: How should such audio/visual (T.V.) material be prepared, produced and distributed? Who will provide the needed organizational "expertise?" This University has capability to provide some input into the resolution of such questions and presents itself as a resource to community planners for these and other problems which are ancillary but highly significant to consideration of a City cable T.V. system. As an indication of our activities, I am enclosing the descriptive literature describing the commercial distribution of educational video tapes which we developed in nursing education.

It is our considered opinion that the best interest of the public will be served if the Common Council of the City of Detroit continues to provide leadership in identifying the complex issues raised by the question of a cable T.V. system. Wayne State University is a vital resource standing ready to assist in developing the optimum Cable T.V. system for Detroit. I should emphasize the integral part which Wayne plays in enhancing the dynamism and viability of our City. Allow me to assure you of Wayne's sincere interest in continuing its involvement in the creative planning of a pioneering Cable T.V. System second to none.

I look forward to hearing from you. We would very much welcome the opportunity of discussing these important matters of mutual interest.

Sincerely yours,

George E. Gullen, Jr.
Acting President

XIII. APPENDIX 4

COST-REVENUE BREAKDOWN

20%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$4,272,000	$4,485,600	$4,709,880	$4,945,374	$5,192.616		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	621,300	507,300	507,300	507,300	507,300		
(b) Convertors	745,560	608,760	608,760	608,760	608,760		
Total	$8,139,160	$6,735,975	$7,016,969	$7,312,011	$6,746,374		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		24,852	20,292	20,292	20,292	20,292	
(b) Accumulated		24,852	45,144	65,436	85,728	106,020	106,020
Revenue							
(a) Subscription		$ 745,560	$2,099,880	$3,317,400	$4,534,920	$5,752,440	$6,361,200
(b) Hook-ups		248,520	202,920	202,920	202,920	202,920	
Total		$ 994,080	$2,302,800	$3,520,320	$4,737,840	$5,955,360	$6,361,200

20%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$ 994,080	$2,302,800	$3,520,320	$4,737,840	$5,955,360	$6,361,200
Operating Expenses	(1,220,874)	(2,231,270)	(3,283,815)	(4,380,617)	(4,380,617)	(5,392,573)	(5,392,573)
Gross Profits	(1,220,874)	(1,237,190)	(981,015)	(860,297)	357,223	562,787	968,627
Interest Expense	(406,958)	(743,756)	(1,094,605)	(1,460,205)	(1,797,524)	(1,797,524)	(1,797,524)
Depreciation		(542,556)	(990,683)	(1,458,014)	(1,944,994)	(2,372,732)	(2,372,732)
Net Income (Loss)	(1,627,832)	(2,524,070)	(3,066,303)	(3,778,516)	(3,385,295)	(3,607,469)	(3,201,629)
CASH FLOW STATEMENT							
Add							
Depreciation		542,556	990,683	1,458,014	1,944,994	2,372,732	2,372,732
Funds Committed	8,139,160	6,735,975	7,016,969	7,312,011	6,746,374		
Cash Available	6,511,328	4,754,461	4,941,349	4,991,509	5,306,073	1,234,737	(828,897)
Deduct							
Capital Asset Costs	(8,139,160)	(6,735,975)	(7,016,969)	(7,312,011)	(6,746,374)		
Working Capital	(1,627,832)	(1,981,514)	(2,075,620)	(2,320,502)	(1,440,301)	(1,234,737)	(828,897)
Accumulated Working Capital	(1,627,832)	(3,609,346)	(5,684,966)	(8,005,468)	(9,445,769)	(10,680,506)	(11,509,403)

COST-REVENUE BREAKDOWN

20%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$5,340,000	$5,607,000	$5,887,350	$6,181,914	$6,490,700		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	621,300	507,300	507,300	507,300	507,300		
(b) Convertors	745,560	608,760	608,760	608,760	608,760		
Total	$9,207,160	$7,857,375	$8,194,439	$8,548,221	$8,044,528		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		24,852	20,292	20,292	20,292	20,292	
(b) Accumulated		24,852	45,144	65,436	85,728	106,020	106,020
Revenue							
(a) Subscription		$ 745,560	$2,099,880	$3,317,400	$4,534,920	$5,752,440	$6,361,200
(b) Hook-ups		248,520	202,920	202,920	202,920	202,920	
Total		$ 994,080	$2,302,800	$3,520,320	$4,737,840	$5,955,360	$6,361,200

20%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$ 994,080	$2,302,800	$3,520,320	$4,737,840	$5,955,360	$6,361,200
Operating Expenses	(1,381,074)	(2,558,680)	(3,788,846)	(5,071,079)	(6,277,758)	(6,277,758)	(6,277,758)
Gross Profits	(1,381,074)	(1,564,600)	(1,486,046)	(1,550,759)	(1,539,918)	(322,398)	83,442
Interest Expense	(460,358)	(853,226)	(1,262,948)	(1,690,359)	(2,092,586)	(2,092,586)	(2,092,586)
Depreciation		(631,196)	(1,136,498)	(1,682,247)	(2,251,559)	(2,762,213)	(2,762,213)
Net Income (Loss)	(1,841,432)	(3,031,022)	(3,885,492)	(4,923,365)	(5,884,063)	(5,177,197)	(4,771,357)
CASH FLOW STATEMENT							
Add							
Depreciation		613,196	1,136,498	1,682,247	2,251,559	2,762,213	2,762,213
Funds Committed	9,207,160	7,857,375	8,548,221	8,044,528			
Cash Available	7,365,728	5,439,548	5,445,445	5,307,103	4,412,024	(2,414,984)	(2,009,144)
Deduct							
Capital Asset Costs	(9,207,160)	(7,857,375)	(8,194,439)	(8,548,221)	(8,044,528)		
Working Capital	(1,841,432)	(2,417,826)	(2,748,994)	(3,241,118)	(3,632,504)	(2,414,984)	(2,009,144)
Accumulated Working Capital	(1,841,432)	(4,259,258)	(7,008,252)	(10,249,370)	(13,881,874)	(16.296.858)	(18.306.002)

COST-REVENUE BREAKDOWN

30%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$4,272,000	$4,485,600	$4,709,880	$4,945,374	$5,192,616		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	931,950	760,950	760,950	760,950	760,950		
(b) Convertors	1,118,340	913,140	913,140	913,140	913,140		
Total	$8,822,590	$7,294,005	$7,574,999	$7,870,041	$7,304,404		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		37,278	30,438	30,438	30,438	30,438	
(b) Accumulated		37,278	67,716	98,154	128,592	159,030	159,030
Revenue							
(a) Subscription		$1,118,340	$3,149,820	$4,976,100	$6,802,380	$8,628,900	$9,541,800
(b) Hook-ups		372,780	304,380	304,380	304,380	304,380	
Total		$1,491,120	$3,454,200	$5,280,480	$7,106,760	$8,933,280	$9,541,800

30%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$1,491,120	$3,454,200	$5,280,480	$7,106,706	$8,933,280	$9,541,800
Operating Expenses	(1,323,388)	(2,417,489)	(3,553,739)	(4,734,245)	(5,829,905)	(5,829,905)	(5,829,905)
Gross Profits	(1,323,388)	(926,369)	(99,539)	546,235	1,276,855	3,103,375	3,711,895
Interest Expense	(441,129)	(805,829)	(1,184,579)	(1,578,081)	(1,943,301)	(1,943,301)	(1,943,301)
Depreciation		(587,584)	(1,073,365)	(1,577,860)	(2,102,004)	(2,591,069)	(2,591,069)
Net Income (Loss)	(1,764,517)	(2,319,782)	(2,357,483)	(2,609,706)	(2,768,450)	(1,430,995)	(822,475)
CASH FLOW STATEMENT							
Add							
Depreciation		587,584	1,073,365	1,577,860	2,102,004	2,591,069	2,591,069
Funds Committed	8,822,590	7,294,005	7,574,999	7,870,041	7,304,404		
Cash Available	7,058,072	5,561,807	6,290,880	6,838,192	6,637,957	1,160,074	1,768,594
Deduct							
Capital Asset Costs	(8,822,590)	(7,294,005)	(7,574,999)	(7,870,041)	(7,304,404)		
Working Capital	(1,764,517)	(1,732,198)	(1,284,118)	(1,031,846)	(666,446)	1,160,074	1,768,594
Accumulated Working Capital	(1,764,517)	(3,496,715)	(4,780,833)	(5,812,679)	(6,479,125)	(5,319,051)	(3,550,457)

COST-REVENUE BREAKDOWN

30%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$5,340,000	$5,607,000	$5,887,350	$6,181,584	$6,490,770		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	931,950	760,950	760,950	760,950	760,950		
(b) Convertors	1,118,340	913,140	913,140	913,140	913,140		
Total	$9,890,590	$8,415,405	$8,752,469	$9,106,251	$8,602,558		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		37,278	30,438	30,438	30,438	30,438	
(b) Accumulated		37,278	67,716	98,154	128,592	159,030	159,030
Revenue							
(a) Subscription		$1,118,340	$3,149,820	$4,976,100	$6,802,380	$8,628,900	$9,541,800
(b) Hook-ups		372,780	304,380	304,380	304,380	304,380	
Total		$1,491,120	$3,454,200	$5,280,480	$7,106,760	$8,933,280	$9,541,800

30%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$1,491,120	$3,452,200	$5,280,480	$7,106,760	$8,933,280	$9,541,800
Operating Expenses	(1,483,588)	(2,745,779)	(4,058,769)	(5,424,707)	(6,715,090	(6,715,090)	(6,715,090)
Gross Profits	(1,483,588)	(1,254,779)	(604,569)	(144,227)	391,670	2,218,190	2,826,710
Interest Expense	(494,529)	(915,299)	(1,352,923)	(1,808,235)	(2,238,363)	(2,238,363)	(2,238,363)
Depreciation		(658,713)	(1,219,179)	(1,802,093)	(2,408,570)	(2,986,686)	(2,986,686)
Net Income (Loss)	(1,978,117)	(2,828,791)	(3,176,671)	(3,754,555)	(4,255,263)	(3,006,859)	(2,398,339)
CASH FLOW STATEMENT							
Add							
Depreciation		658,713	1,219,179	1,802,093	2,408,570	2,986,686	2,986,686
Funds Committed	9,890,590	8,415,405	8,752,469	9,106,251	8,602,558		
Cash Available	7,912,473	6,245,326	6,794,976	7,153,788	6,755,864	(20,173)	588,347
Deduct							
Capital Asset Costs	(9,890,590)	(8,415,405)	(8,752,469)	(9,106,251)	(8,602,558)		
Working Capital	(1,978,117	(2,170,078)	(1,957,492)	(1,952,462)	(1,846,693)	(20,173)	588,347
Accumulated Working Capital	(1,978,117)	(4,148,195)	(6,105,687)	(8,058,149)	(9,904,842)	(9,925,015)	(9,336,668)

COST-REVENUE BREAKDOWN

40%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$4,272,000	$4,485,600	$4,709,880	$4,945,374	$5,192,616		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	1,242,600	1,014,600	1,014,600	1,014,600	1,014,600		
(b) Convertors	1,491,120	1,217,520	1,217,520	1,217,520	1,217,520		
Total	$9,506,020	$7,852,035	$8,133,029	$8,428,071	$7,862,434		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		$ 49,704	$ 40,584	40,584	40,584	40,584	
(b) Accumulated		49,704	90,288	130,872	171,456	212,040	212,040
Revenue							
(a) Subscription		$1,491,120	$4,199,760	$6,634,800	$9,069,840	$11,504,880	$12,722,400
(b) Hook-ups		497,040	405,840	405,840	405,840	405,840	
Total		$1,988,160	$4,605,600	$7,040,640	$9,475,680	$11,910,720	$12,722,400

40%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$1,988,160	$4,605,600	$7,040,640	$9,475,680	$11,910,720	$12,722,400
Operating Expenses	(1,425,903)	(2,603,708)	(3,823,662)	(5,087,873)	(6,267,238)	(6,267,238)	(6,267,238)
Gross Profits	(1,425,903)	(615,458)	781,938	1,952,767	3,208,442	5,643,482	6,455,162
Interest Expense	(475,301)	(867,902)	(1,274,554)	(1,695,957)	(2,089,079)	(2,089,079)	(2,089,079)
Depreciation		(633,100)	(1,156,046)	(1,697,706)	(2,259,015)	(2,785,659)	(2,785,659)
Net Income (Loss)	(1,901,204)	(2,116,550)	(1,648,662)	(1,440,896)	(1,139,652)	768,744	1,580,424
CASH FLOW STATEMENT							
Add							
Depreciation		633,100	1,156,046	1,697,706	2,259,015	2,785,659	2,785,659
Funds Committed	9,506,000	7,852,035	8,133,029	8,428,071	7,862,434		
Cash Available	$7,604,816	$6,368,584	$7,640,412	$8,684,880	$8,981,796	$3,554,403	$2,785,659
Deduct							
Capital Asset Costs	(9,506,020)	(7,852,035)	(8,133,029)	(8,428,071)	(7,862,434)		
Working Capital	(1,901,204)	(1,483,450)	(492,616)	256,810	1,119,363	3,554,403	4,366,083
Accumulated Working Capital	(1,901,204)	(3,384,654)	(3,877,270)	(3,620,460)	(2,501,097)	1,053,306	5,419,389

COST-REVENUE BREAKDOWN

40%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$5,340,000	$5,607,000	$5,887,350	$6,181,584	$6,490,770		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	1,242,600	1,014,600	1,014,600	1,014,600	1,014,600		
(b) Convertors	1,491,120	1,217,520	1,217,520	1,217,520	1,217,520		
Total	$10,574,020	$8,973,435	$9,310,499	$9,664,281	$9,160,588		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,130
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		49,704	40,584	40,584	40,584	40,584	
(b) Accumulated		49,704	90,288	130,872	171,456	212,040	212,040
Revenue							
(a) Subscription		$1,491,120	$4,199,760	$6,634,800	$9,069,840	$11,504,880	$12,722,400
(b) Hook-ups		497,040	405,840	405,840	405,840	405,840	
Total		$1,988,160	$4,605,600	$7,040,640	$9,475,680	$11,910,720	$12,722,400

40%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$1,988,160	$4,605,600	$7,040,640	$9,475,680	$11,910,720	$12,722,400
Operating Expenses	(1,586,103)	(2,932,118)	(4,328,693)	(5,778,335)	(7,152,423)	(7,152,423)	(7,152,423)
Gross Profits	(1,586,103)	(943,958)	276,907	1,262,305	2,323,257	4,758,297	5,569,977
Interest Expense	(528,701)	(977,372)	(1,442,897)	(1,926,111)	(2,384,141)	(2,384,141)	(2,384,141)
Depreciation		(704,229)	(1,301,860)	(1,921,939)	(2,565,580)	(3,178,877)	(3,178,877)
Net Income (Loss)	(2,114,804)	(2,625,559)	(2,467,850)	(2,585,745)	(2,626,464)	(804,721)	6,959
CASH FLOW STATEMENT							
Add							
Depreciation		704,229	1,301,860	1,921,939	2,565,580	3,178,877	3,178,877
Funds Committed	10,574,020	8,973,435	9,310,499	9,664,281	9,160,588		
Cash Available	8,459,216	7,052,104	8,144,508	9,000,474	9,099,703	2,374,156	3,185,836
Deduct							
Capital Asset Costs	(10,574,020)	(8,973,435)	(9,310,499)	(9,663,806)	(9,160,588)		
Working Capital	(2,114,804)	(1,921,330)	(1,165,990)	(663,332)	(60,884)	2,374,156	3,185,836
Accumulated Working Capital	(2,114,804)	(4,036,134)	(5,202,124)	(5,865,930)	(5,926,814)	(3,552,658)	(366,822)

COST-REVENUE BREAKDOWN

50%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$4,272,000	$4,485,600	$4,709,880	$4,945,374	$5,192,616		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,600	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	$1,553,250	$1,268,250	$1,268,250	$1,268,250	$1,268,250		
(b) Convertors	1,863,900	1,521,900	1,521,900	1,521,900	1,521,900		
Total	$10,189,450	$8,410,065	$8,691,059	$8,986,101	$8,420,464		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		62,130	50,730	50,730	50,730	50,730	
(b) Accumulated		62,130	112,860	163,590	214,320	265,050	265,050
Revenue							
(a) Subscription		$1,863,900	$5,249,700	$8,293,500	$11,337,300	$14,381,100	$15,903,000
(b) Hook-ups		621,300	507,300	507,300	507,300	507,300	
Total		$2,485,200	$5,757,000	$8,800,800	$11,844,600	$14,888,400	$15,903,000

50%--Low

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$2,485,200	$5,757,000	$8,800,800	$11,844,600	$14,888,400	$15,903,000
Operating Expenses	(1,528,417)	(2,789,927)	(4,093,586)	(5,441,501)	(6,709,570)	(6,704,570)	(6,704,570)
Gross Profits	(1,528,417)	(304,727)	1,663,414	3,359,299	5,140,030	8,183,830	9,198,430
Interest Expense	(509,472)	(929,975)	(1,364,528)	(1,813,833)	(2,234,856)	(2,234,856)	(2,234,856)
Depreciation		(672,503)	(1,238,727)	(1,817,552)	(2,416,026)	(2,979,809)	(2,979,809)
Net Income (Loss)	(2,037,889)	(1,907,205)	(939,841)	(272,086)	489,147	2,969,165	3,983,765
CASH FLOW STATEMENT							
Add							
Depreciation		672,503	1,238,727	1,817,552	2,416,026	2,979,809	2,979,809
Funds Committed	10,189,450	8,410,065	8,691,059	8,986,101	8,420,464		
Cash Available	8,151,561	7,175,362	8,989,944	10,531,566	11,325,637	5,948,974	6,963,574
Deduct							
Capital Asset Costs	(10,189,450)	(8,410,065)	(8,691,059)	(8,986,101)	(8,420,464)		
Working Capital	(2,037,889)	(1,234,702)	298,886	1,545,466	2,905,174	5,948,974	6,963,574
Accumulated Working Capital	(2,037,889)	(3,272,591)	(2,973,705)	(1,428,239)	1,476,935	7,425,909	14,389,483

COST-REVENUE BREAKDOWN

50%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
CAPITAL COSTS							
Cable Trunk Lines							
(a) Aerial	$5,340,000	$5,607,000	$5,887,350	$6,181,914	$6,490,700		
(b) Underground	1,320,000						
(c) 3-cable	300,300	315,315	331,069	347,631	121,667		
Master Antenna	100,000						
Local Antennas	120,000	126,000	132,300	138,915	48,620		
Local Broadcasting	660,000	693,000	727,660	764,031	267,411		
Subscriber Equipment							
(a) Hook-ups	1,553,250	1,268,250	1,268,250	1,268,250	1,268,250		
(b) Convertors	1,863,900	1,521,900	1,521,900	1,521,900	1,521,900		
Total	$11,257,450	$9,531,465	$9,868,529	$10,222,311	$9,718,618		
MILES OF CABLE							
(a) Aerial	534	534	534	534	534		
(b) Underground	120						
(c) 3-cable	23.1	23.1	23.1	23.1	7.7		
HOUSEHOLDS PAST							
(a) New	124,260	101,460	101,460	101,460	101,460		
(b) Accumulated	124,260	225,720	327,180	428,640	530,100	530,100	530,100
SUBSCRIBERS AS OF DEC. 31 OF YEAR							
(a) New		62,130	50,730	50,730	50,730	50,730	
(b) Accumulated		62,130	112,860	163,590	214,320	265,050	265,050
Revenue							
(a) Subscription		$1,863,900	$5,249,700	$8,293,500	$11,337,300	$14,381,100	$15,903,000
(b) Hook-ups		621,300	507,300	507,300	507,300	507,300	
Total							

50%--High

	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year
PROFIT AND LOSS STATEMENT							
Gross Revenues		$2,485,200	$5,757,000	$8,800,800	$11,844,600	$14,888,400	$15,903,000
Operating Expenses	(1,688,617)	(3,118,337)	(4,598,616)	(6,131,963)	(7,589,755)	(7,589,955)	(7,589,755)
Gross Profits	(1,688,617)	(633,137)	1,158,384	2,668,837	4,254,845	7,298,645	8,313,245
Interest Expense	(562,872)	(1,039,445)	(1,532,872)	(2,043,987)	(2,529,918)	(2,529,918)	(2,529,918)
Depreciation		(749,746)	(1,384,541)	(2,041,785)	(2,722,591)	(3,373,227)	(3,373,227)
Net Income (Loss)	(2,251,489)	(2,422,328)	(1,759,029)	(1,416,935)	(997,664)	1,395,000	2,410,100
CASH FLOW STATEMENT							
Add							
Depreciation		749,746	1,384,541	2,041,785	2,722,591	3,373,227	3,373,227
Funds Committed	11,257,450	9,531,465	9,868,529	10,222,311	9,718,618		
Cash Available	9,005,961	7,858,882	9,494,040	10,847,160	11,443,544	4,768,727	5,783,327
Deduct							
Capital Asset Costs	(11,257,450)	(9,531,465)	(9,868,529)	(10,222,311)	(9,718,618)		
Working Capital	(2,251,489)	(1,672,582)	(374,488)	624,850	1,724,927	4,768,727	5,783,327
Accumulated Working Capital	(2,251,489)	(3,924,071)	(4,298,559)	(3,673,709	(1,948,782)	2,819,945	8,603,272

TOTALS

	20% Low	20% High	30% Low	30% High	40% Low	40% High	50% Low	50% High
Profit and Loss Statement								
Gross Revenue	$23,871,600	$23,871,600	$35,807,640	$35,807,640	$47,743,260	$47,743,260	$59,679,000	$59,679,000
Operating Expenses	(26,282,339)	(31,632,953)	(29,518,576)	(33,858,233)	(31,742,860)	(36,082,518)	(33,967,141)	(38,306,798)
Gross Profits	(2,410,739)	(7,761,353)	6,289,064	1,949,407	16,000,400	11,660,742	25,711,859	21,372,202
Interest Expense	(9,098,096)	(10,544,649)	(9,839,521)	(11,286,075)	(10,580,951)	(12,027,504)	(11,322,376)	(12,768,930)
Depreciation	(9,681,711)	(11,207,926)	(10,522,951)	(12,061,927)	(11,317,185)	(12,851,362)	(12,104,426)	(13,645,117)
Net Income (Loss)	(21,190,546)	(29,513,928)	(14,073,408)	(21,398,595)	(5,897,736)	(13,218,124)	2,285,057	(5,041,845)
Cash Flow Statement								
Add								
Depreciation	9,681,711	11,207,926	10,522,951	12,061,927	11,317,185	12,851,362	12,104,426	13,645,117
Funds Committed	35,950,489	41,851,723	38,866,589	44,767,273	41,781,589	47,682,823	44,697,139	50,598,373
Cash Available	24,441,654	23,545,721	35,316,132	35,430,605	47,201,038	47,316,061	59,086,622	59,201,645
Deduct								
Capital Asset Costs	(35,950,489)	(41,851,723)	(38,866,589)	(44,767,273)	(41,781,589)	(47,682,823)	(44,697,139)	(50,598,373)

	20% Low	20% High	30% Low	30% High	40% Low	40% High	50% Low	50% High
Cable Trunk Lines								
(a) Aerial	$23,605,470	$29,506,704	$23,605,470	$29,506,704	$23,605,470	$29,506,704	$23,605,470	$29,506,704
(b) Underground	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000	1,320,000
(c) 3-Cable	1,415,982	1,415,982	1,415,982	1,415,982	1,415,982	1,415,982	1,415,982	1,415,982
Master Antenna	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Local Antenna	565,835	565,835	565,835	565,835	565,835	565,835	565,835	565,835
Local Broadcasting	3,112,102	3,112,102	3,112,102	3,112,102	3,112,102	3,112,102	3,112,102	3,112,102
Subscriber Equipment								
(a) Hook-ups	2,650,500	2,650,500	3,975,750	3,975,750	5,301,000	5,301,000	6,626,250	6,626,250
(b) Convertors	3,180,600	3,180,600	4,770,900	4,770,900	6,361,200	6,361,200	7,951,500	7,951,500
Total	$35,950,489	$41,851,723	$38,866,039	$44,767,273	$41,781,589	$47,681,823	$44,697,139	$50,598,373
Miles of Cable								
(a) Aerial	2670	2670	2670	2670	2670	2670	2670	2670
(b) Underground	120	120	120	120	120	120	120	120
(c) 3-Cable	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1
Revenue								
(a) Subscription	$22,811,400	$22,811,400	$34,217,340	$34,217,340	$45,622,800	$45,622,800	$57,028,500	$57,028,500
(b) Hook-ups	1,060,200	1,060,200	1,590,300	1,590,300	2,120,400	2,120,400	2,650,500	2,650,500
Total	$23,871,600	$23,871,600	$35,807,640	$35,807,640	$47,743,200	$47,743,200	$59,679,000	$59,679,000

XIV. SEPARATE VIEWS

AVERN COHN

I support the idea of a public authority if it is financially feasible (though I have no doubt public authorities can be as guilty of abusing their responsibility as the Committee fears of private enterprise). I also strongly support the need for additional analysis before the Common Council takes another step.

The projections should include the impact of the new FCC Regulations as well as a strong emphasis on the possible need for a regional system as questioned in Section I of the Report. I, with the rest of the Committee, urge a moratorium until such projections are completed.

Beyond the foregoing and with all due respect for the labor and good faith of my colleagues on the Committee, I refrain from joining in the rest of the recommendations. I refrain because a majority of the recommendations are based on conjecture, desire and wishful thinking with little in the way of empirical data to support them.

The worth of the Report is in Section I of the Recommendations: **Need for Engineering and Financial Projections.**

Had the committee stopped at the end of Section I, it would have made a valuable contribution to the Common Council's efforts to find answers to the questions of CATV in Detroit. As it is, by going on and on into a myriad of detail there is great danger that the grain will be lost to the chaff. The considerable emphasis on public service and community involvement is conjecture. The impression gained from reading the Report is that in some magical way with half the City performing and the other half watching, the quality of life in Detroit will improve with cable. I hope so. There is nothing I have seen or studied which supports any such utopian dream. Until engineering and financial projections are obtained we shall not know whether CATV is even feasible in a city the size of Detroit. The thirty to seventy-five million dollars it will cost to wire Detroit will not come forth without a considerable assurance that it can be repaid.

Many of the recommendations rely more on faith than fact. For example: there has been no study of the economics of using revenue from commercial operations to support the enormous public service component of cable envisioned by the study. The recommendations in **Organization For Operation Of The System** (III) **Channel Allocation** (IV) and **Access** (V) may well violate FCC Regulations (as well as being impractical) to the extent that no waiver is even remotely possible and there will be no opportunity for franchising under the conditions required by them.

The section on **Employment** (X) introduces novel and potentially divisive principles in the criteria for affirmative action in assisting minorities in gaining rightful employment. No study has been made either of the feasibility or consequences of the first recommendation in this section or for that matter its legality.

The Study should have included a model ordinance (or at least a check list for a model ordinance).

The criteria by which to judge an application and the conditions for a grant of a private franchise are buried deep in Section III. This should have been a major part of the Study, considering particularly the wholly inadequate and in some ways deceptive applications currently before the Common Council for franchises — and which apparently prompted the appointment of the committee in the first place.

The section on **Regulation** (VII) while descriptive of the general nature of the regulatory systems currently in effect at the federal, state and local levels, fails to make any significant recommendation. The plain blunt fact is that the State of Michigan has been wholly lax in coming to grips with the need for regulation. There are over fifty CATV systems in operation in our State. The franchise ordinances which give rise to these systems range from one to fifty pages in length. Up until now there has been no attempt made to establish state-wide standards for franchising. Until this year the Michigan Public Service Commission shied away from regulation in this area. The Governor has yet to express himself on the question, while New York and other states have found it necessary to declare a moratorium on franchising to bring some order out of the chaos found.

The Council needs the services of considerably more expertise than a lay committee is able to bring to bear before it proceeds further.

/s/ AVERN COHN

HENRY DODGE

The recommendations of the Cable Television Study Committee created by the Detroit City Council constitute a very comprehensive, ambitious but unrealistic undertaking. If CATV is to become a reality in Detroit, no potential cable operator will be able to live with or comply with many of the stipulations. Due to limitations of time and space, the following represent only a few highlights of dissent.

Since metropolitan Detroit residents have a choice of receiving at least seven television channels clearly, without experiencing weak signal strength, distortion or other reception difficulties, the immediate attraction of CATV, and its prime economic feasibility are questioned. Most large, multiple dwelling buildings and hotels already have antenna systems with distribution outlets and signal amplifiers.

CATV hardware and software should be privately owned, operated and financed. It should take on the status of a public utility, subject to federal, state and local regulatory agencies. Its status as a potential common carrier needs to be further explored and defined.

Provisions for interconnectability with regional, state and national CATV networks should not be neglected. The potential capability to incorporate Pay TV is to be a basic component of the system.

Subscription rates for users shall be uniform; consisting of a reasonable, flat monthly charge for the first set, plus a small "extension" fee for each additional receiver connected to the cable in each household or unit.

Definite technical standards shall be established for the CATV operator. Minimum signal strength and quality at each receiver shall be established. CATV operator shall provide and maintain converter for each receiver as an integral part of subscription plan. Converters shall be so designed as to be readily connectable to all commonly marketed TV receivers. CATV operator shall not offer sales and service of TV receivers. Standard TV receivers shall continue to be capable of receiving "over-the-air" signals upon disconnecting CATV equipment.

CATV operator shall abide by established federal and state Fair Employment Practices legislation.

While privacy of viewing and responding habits of individual subscribers shall be protected, general data for market surveys, without identifying specific subscribers, may be permissible.

Sufficient flexibility must be accorded the CATV operator(s) in most phases of the operation, such as channel allocations, channel designation, revenue allocation and distribution, as well as contract negotiations with potential users and advertisers, in order to render the system(s) economically feasible.

Submitted by
HENRY DODGE
CATV Study Committee Member
(Chairmen, Detroit Civic & Consumer Council)
P.O. Box 5122, Seven Oaks Station
Detroit, Michigan 48235

Joined by

STANLEY KRAJEWSKI
CATV Study Committee Member
(Editor, Polish Daily News)

EDNA HENDERSON

TO: Dr. James Bristah, Chairman of the Cable TV Study Committee,

AND: Honorable Members of the Common Council

The development of cable television is a new telecommunications technology. When one considers the state of our world, our country, our cities, and the number of television sets in our homes, cable television can become as important to people as the air they breathe and the food they eat. Cable television will provide many channels and an opportunity for all citizens to telecast, view a vast variety of programs and utilize the non-television services possible on a dual cable system.

In order to better understand the recommendations of this Report, I raise the following questions as they relate to some basic issues concerning the granting of a cable franchise in the City of Detroit.

1. How much money has Detroit lost in revenues from private businesses moving out of the city within the last ten years, more recently, the last three years?
2. To what extent did the Common Council appeal to these businesses to remain in Detroit?
3. What is the potential of cable television to generate revenues annually?
4. Why is the Common Council being pressured constantly by private entrepreneurs to grant them a franchise?
5. Considering the potential of millions of dollars in revenues, in a decade possibly billions, why would the Common Council consider granting this source of revenue to a private corporation?
6. How will the revenues generated from the development of cable television in Detroit benefit the City of Detroit and its citizens?
7. How can the revenues from cable television be used to help to develop its potential as an important medium for people in communications?
8. How will municipal control of developing jobs and job opportunities benefit the City of Detroit and its citizens?
9. How would municipal control of subcontracting to minority and local small businesses benefit the City of Detroit and the businesses with limited capital?
10. Would more citizens be provided with a lower subscriber fees and more services by generating the revenues from them back into the cable system?
11. Will sufficient funds be available to develop a high level of community programming and the non-television services for the public?
12. Is the City of Detroit the largest area to be considered for the construction of a single cable system presently?
13. Will the inclusion of one or more suburbs negate any of the recommendations of this Committee's report?
14. Can the Common Council criticize private business and industry for moving out of the City of Detroit when it does not seize this opportunity to help the City of Detroit?

Respectfully submitted,

/s/ EDNA HENDERSON
Cable Television Study Member

EDWARD R. KOCH

Reverend James Bristah, Chairman
Cable TV Study Committee

Dear Reverend Bristah:

Having labored through the many months of this Committee's life, along with my fellow members, I feel that we have had adequate debate and that a reasonable decision making process has been followed. My support for the major conclusions and viewpoint of the Report is well known to you and to other members. Our concern has been to raise the pertinent public interest issues. In this effort, I believe we have been reasonably exhaustive.

Our recommendation in particular, which was the subject of prolonged debate within the Committee, seems to me to have been resolved in a way which is inconsistent with our general regard for the "best use" of this new medium. Recommendation 5 of the ACCESS section takes the position "that subscribers in any Cable District be able to view programming on all channels within the City's Cable System . . ." with certain minor exceptions. I believe that such a recommendation is inconsistent with the most effective use of the Cable medium and with other of our own recommendations.

It is now a well established principle that Cable will multiply the available television spectrum. This principle is recognized in our treatment of channel allocation and the need to assure access for every variety of opinion and community interest. This does not mean, however, that the available number of channels will be unlimited. Quite the contrary, we are looking forward to the installation of a system which initially provides something less than 40 channels. Even recognizing the potentiality of additional channels within a fairly short run — perhaps ten years — it is clear that we are dealing with a finite number. Whether or not that number becomes significantly larger than we can immediately foresee, it will still always remain a finite number. It seems inconceivable that we, the Committee, have been unable to apply the principles now so vigorously advocated by conservationists and ecologists to Cable. As we have learned with air, land, water and energy, we must not be wasteful of our resources, no matter how abundant they seem to be at the moment. The television of abundance, as the Sloan Committee has called it, is not — nor do I believe it will become — a television of unlimited availability.

I do not believe, therefore, that an efficient use of this resource will be realized by insisting upon the universal availability of all programming to all viewers. One of the many benefits envisioned for Cable is the ability to limit programming on the basis of geographic or "community of interest" boundaries. Viewers interested in the proceedings of a particular regional school board or zoning proceeding, for example, will be much more likely to have viewing access to such proceeding if they are available on a selective, rather than universal, basis.

Our recommendation that all programming be viewable system wide will initially limit community programming to ten channels — if our recommendations are accepted by the ultimate decision makers. While this number seems extremely large in comparison to the current situation, I cannot believe that these channels will exhaust the diversity of interest and opinions in our City.

Ten city-wide community channels occupying ten full channels on the Cable is a wasteful use of this medium. Limiting the coverage of five of these channels to the Cable District in which they originate will multiply the number of available channels by the number of districts, and we have recommended five such districts. If only half these channels allow viewer access in the geographic area from which they originate, we can add twenty more community channels immediately. This would still allow five city-wide community channels to function, a much more efficient use of the available medium from my point of view.

In addition, I must note that we have recommended, under the section on regulation, that the city take leadership in developing the interconnectability of the city system with others in the region and in the state. By assigning one quarter of the available channels to the community at large, rather than on a selective basis, we will immediately use all the available channel capacity. This prevents a system beyond the political boundaries of the city from interconnecting with the Detroit system and still enjoying some access for their own community, unless they choose to eliminate or selectively receive Detroit's originations. If there is any anticipation that other systems will, indeed, interconnect with the Detroit system, there must be channel capacity available to those communities. We have recognized in our discussions that the Cable medium can create further divisions between people and communities in the urban area. Conversely, we have recognized the potential for the Cable to break-down some of those same barriers. I believe that in applying the universal viewing rule to community programming we will be exhibiting the same attitude we normally disdain: that is, we must not dismiss the legitimate needs of people simply because they are beyond the nearest political boundary.

In fairness I must recognize that many of my fellow Committee members have endorsed this recommendation for universal viewer access on the basis of a very genuine concern for the very fullest availability of information among the various segments of our community. While I agree in principle that this is needed, I cannot acquiesce in the implementation method they have chosen to achieve this desirable end.

Respectfully yours,

/s/ EDWARD R. KOCH

CONRAD L. MALLETT

Except for one of its recommendations, I subscribe fully to the report of the CATV Study Committee and am proud that I had an opportunity to participate in its deliberations.

The exception taken, however, is important. So important, indeed, that I am compelled to express my dissent most emphatically.

The Report's Summary gives as its first a "major" recommendation, "That a cable television system for Detroit be publicly (rather than privately) owned . . ."

Ironically, the Report itself provides evidence to prove that this recommendation is not only impractical but undesirable. A publicly owned CATV system is a self-defeating concept, without historical precedent and contrary to the best interests of the people of Detroit. In effect, if this recommendation were to be accepted it would mean no CATV for Detroit residents.

Yet the Committee's Report testifies that the task facing Detroit is **"to ensure cable television, both for commercial and public services, for the citizens of Michigan."** In the next sentence (p. 8), the CATV investment needs are estimated as ranging "anywhere from $30 million to $120 million depending on the sophistication of the system. Second, the Report continues, "the system will no doubt operate at a loss for the next few years . . ."

Obviously, this city cannot undertake a debt responsibility of this magnitude in this decade. Our city services are being curtailed, our finances are in disarray, our debt structure is already overburdened. It is no secret that city leaders have already used the word "bankruptcy" in referring to their fiscal projections.

If $30 million to $120 million were made available to Detroit — and the Committee Report fails to indicate how this miracle might come to pass — certainly its allocation would more properly be directed to other purposes.

The City of Detroit would be permitted to generate CATV capital from one of three sources: additional taxes, bonds presently authorized or new bond issues. The first of these, taxes, cannot seriously be entertained as a genuine revenue raising possibility. The citizens will not permit it.

As for bonds, the city now has less than $3 million per year of bond margin which may be made available for new investment. Even if this were allocated to CATV, it would not be sufficient to begin installation of even the smallest segment of a system.

And, thirdly, the political and economic feasibility of a new bond issue, to support a speculative, long range, non-essential service such as CATV at a time when the city is confronted with severe financial crisis is nil. Detroit is in no position now or in the foreseeable future to undertake a capital investment of the dimensions described for CATV. To advocate public ownership of CATV when it simply cannot be accomplished is in reality to recommend that it not be introduced.

Even assuming that public money was made available for a CATV system and that the community would somehow concur that this was a valid and necessary priority, there are other critical reasons why private ownership is preferable.

The Committee's Report states that, "any cable system for the city ought to provide public as well as commercial services at its inception; and the public services ought to be supported in large part by revenue from commercial operations."

The inference here is that only public ownership would encourage public services. As a matter of fact, private owners in most communities now provide a wide range of public services. They have not been compelled to do so . . . they are anxious to do so, because it enhances their position and enlarges their audience. There is no conceivable reason why private owners would restrict public participation. As a future guarantee, strong, realistic, "public service" requirements should be specified in the city CATV franchise together with provisions for assignment of commercial revenue to help finance these purposes. The "public service" features of CATV would not, on the other hand, necessarily or automatically flow from public ownership.

The control of public service programming by a city administration or other public body could, in fact, act to inhibit the free flow of communication.

Public ownership in America has failed to prove itself sufficiently responsive to the community in most of the areas of its authority, especially since WW II. To argue otherwise requires belief that America's cities serve their inhabitants equally and adequately. It requires belief that city Civil Service systems allow equal opportunities to such minorities as youth, blacks, chicanos and other "newcomers" to the "better job" market. It requires a demonstration that governmental policies at any level are in the broadest public interest, such as welfare, educational, housing, health programs, and the disasterous politics of Vietnam.

On the contrary, a strong argument could be made to prove that public ownership i.e., the post office, the schools, the garbage collection agencies — is structured to work **against** the best interests of the most needy elements of our society. At the least, public ownership certainly does not **guarantee** community betterment.

The ownership and control of any medium of communications by an organ of government poses a critical threat to our First Amendment liberties. A dramatic example is the effort of the U. S. Department of Justice to stifle publication of the Pentagon papers.

Imagine the reaction of local officials if a Detroit-owned CATV system were to broadcast previously concealed data which might bring embarrassment or even criminal charges against those same officials.

The separation of government from direct control of the communications media is, indeed, the distinct purpose and genius of the First Amendment!

It would be naive to assume that a city-owned station would always countenance truly objective reporting. Who would control the handling of such sensitive hypothetical topics as:

1. A rent strike provoked by failure of the government to maintain liveable conditions in public housing.

2. A confrontation with police which evokes passionate public outcry.
3. A protest involving picketing of the City-County Building.
4. A breakdown in city or county services, such as garbage collections or jail sanitation, where the cause is primarily government inefficiency.

Besides the concerns over the temptations of censorship by city government, there are other, more immediate priorities which CATV must satisfy.

CATV, according to Ted Ledbetter, can create 750,000 to 1,000,000 new jobs in the next 10 years.[1]

Shall we leave it to government to distribute these jobs fairly? If we do, we should recognize that past performance would indicate that discrimination would be rampant, nepotism and favoritism would flourish, and the Civil Service system would not guarantee that the most qualified and the most deserving would get the best or the most jobs. If history is our teacher, clearly the government personnel and the practices once built into the system would be almost immune to meaningful change. And a primary interest of each bureaucratic overlord in the system would be to enlarge and protect his fiefdom, not necessarily to serve the people.

Those, unfortunately, are some of the characteristics of government as we have come to know it.

It is, however, not as much a matter of approaching the subject with cynicism as it is a recognition of self-interest.

The "self-interests" served by the owners of a CATV system are not the same as with commercial TV. With the latter, revenues are derived from advertisers. As a consequence, programs are directed to masses of consumers. They are designed primarily to sell products, and only incidentally to communicate. This emphasis pervades all commercial broadcasting, including the news, children's shows, talk shows and old movies. Quality, diversity and relevance have long capitulated to ratings and market appetites.

CATV is not designed to profit from advertisers. Its principal, if not sole, source of revenue is in its subscriptions to the service. Its self-interest, therefore, is to appeal to as many general and specific audiences as possible. The broader and the more diversified its programming, the more subscriptions it will enroll.

Commercial over-the-air TV would no more be willing to broadcast a high school play than it would a regional school board meeting. Yet CATV might be delighted to serve those small but devoted audiences. The self interests of CATV management, in fact, would be best served by providing the maximum number of channels for as much time as possible to as many community groups as could avail themselves of the service.

Similarly with hiring and personnel practices. Where commercial TV can ignore community pressures for greater attention to minority job applicants, CATV would profit by spreading its job opportunties broadly. The inducement would be the wider support for subscriptions generated by the more liberal personnel policies. The assurance that fair employment practices would be followed could even be written into the franchise and supervised by a higher authority.

And, lastly, public ownership embodies the danger of institutionalizing a vital communications power whose autonomy might never be revoked. If the city, for example, owns its own CATV franchise, who will police its practices? It must be noted that even the Federal Communications Commission has on occasion revoked the public broadcasting licenses of commercial TV. In Boston and San Francisco, for example, TV licenses were revoked because of overlapping ownership by local newspapers. Similar suits are pending or threatened in several other cities.

With a city-owned facility, however, the vulnerability to political control by the party or group in power, combined with the absence of a public protective body or the ability to amend or revoke the franchise would make the system virtually impregnable to outside influence.

The fact is that, despite the traditional and historic acceptance of the view that public ownership provides more democratic service, the opposite may be closer to the truth. The danger that CATV may be used against the people rather than for the people is not resolved by a decision for public ownership.

Public ownership of a cable system, the Committee Report suggests, might "be viewed as a public utility." The Report cites the need for

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[1] A Historical Overview of Cable Television, prepared by Ted Ledbetter for the Urban Institute, page 12.

"public investment" but it fails to identify possible investors.

The "public utility" concept, moreover, is not a synonym for public ownership. All three major utilities in Detroit, for example, are privately owned stock corporations.

The Report does a disservice when it recommends "public ownership" and at the same time advocates the establishment of a public utility, knowing full well that Detroit is in no position to provide the investment capital required.

Further, in its opposition to private ownership, the Report predicts "significant competition between legitimate needs for profit and support for the system's public services." This argument is not substantiated by the testimony of CATV experts nor is it consistent with experience in other cities where CATV is in use. On the contrary, profits for private owners are increased in direct proportion to the public's use of and interest in CATV. The same cannot be said for many publicly owned facilities and services, including the library, the art museum, our parks and pools, and the many other city services which are curtailed and restricted as a matter of city policy or economic necessity.

The original Committee arguments for public ownership stem largely from an understandable fear of private corporate authority. The evidence supporting such fear is abundant . . . one need only read the sordid history of some of America's giant predatory corporate powers. But private ownership under proper public surveillance is not contrary to the public interest, especially when there is no viable alternative. More important, public ownership would in fact be less desirable, less profitable for the city and more susceptible to political abuse and manipulation.

Ideally, public ownership is an attractive and appealing concept. In Detroit, and in a profit motivated society, it can be no more than a wisp of fancy, an unrealizable dream that can more likely turn into a nightmare.

If CATV is to be a reality in our time, it must be built with private capital, managed by private ownership in the public interest, and it must be made to serve the maximum public good. To recommend otherwise is to resign this city to inaction on a program that has the potential now to render important service to all the people.

/s/ CONRAD L. MALLETT

REGINALD D. McGHEE

Chairman James W. Bristah, fellow members of the Cable TV Study Commission, distinguished members of the Detroit Common Council:

Position

As a member of the Cable TV Study Commission charged with the responsibility of drafting a report which will determine the best interests of Detroit and its citizenry, I am impelled by the nature of the majority opinion to file the following minority report.

Realizing the need of Detroit to promote and develop industries with which to financially sustain the city, and which will provide democratic participation at all levels for all citizens, it is my belief that only public ownership of Cable TV can satisfy these requirements.

Public Ownership

Public ownership represents ownership of the highest form. It contains a built-in elasticity far more receptive to change than, in my opinion, other forms of ownership which by their private nature makes access to the decision-making process more difficult, and less democratic.

What Is Public Ownership?

Simply this, a product whose ownership is vested in the total community, and not in the hands of a few. Its chief concern is the delivery of services, and not in the accumulation of capital for the purpose of aggrandizing the monetary pursuits of a selected few. It is noteworthy to mention that various federal, state and local governing bodies own and operate business enterprises. Many services, and not a few products, are produced directly by municipal departments and bureaus. Nearly all large cities operate such enterprises as their own water supply systems. Cable TV, in the case of Detroit, could become an additional service analogous to other services being offered residents of the city. (It is interesting to note that the Common Council of Palo Alto, California, has approved the concept of municipal ownership of its Cable TV.)

The following subjects, as they relate to Detroit and Cable TV, are herein presented for your thoughtful consideration.

Employment

A municipally owned system would create literally hundreds of jobs for the trained as well as the untrained. To transform Detroit into a "wired city" would require the services of various engineers: Electrical, Mechanical, Radar, and Electronic. In addition to the aforementioned categories or personnel, the need would arise for management, accounting, maintenance, and construction employees. It would also require trucks, test equipment and office equipment, and the supportive personnel for these systems.

The all-pervasive myths that private enterprise, or a non-profit organization could handle more efficiently and more economically the delivery of Cable TV to Detroit, can very easily be dispelled in analyzing the experiences of such companies as Lockheed and the Penn Central Railroad; certainly examples of gross inefficiency and mismanagement in private enterprise.

A city-owned system would be an excellent means for providing jobs for **Detroiters,** many of whom face unemployment or who are at this moment unemployed. They could be rapidly trained to the technologies of cable by on the job training and by observing the installations of other systems. (At the present time, Television Communications, Inc., is presently installing a CATV system in Akron, Ohio.) The cable could be installed either below or above ground, which by the nature of the **cable** system, an untrained person could perform. Think of the many jobs that could evolve from this plan of ownership. Actors, actresses, technicians, equipment operators, repairmen, and various categories of service people connected with the sales and service of ancillary equipment incidental to the needs of Cable TV. It would indeed create a new work force, replete with a purchasing power to bolster the sagging economy of the City of Detroit.

The Minority Role

In my opinion, employment for minorities within the total field of CATV can best be achieved were it to emanate from the public rather than the private sector. The private sector, by its past performance has proven its indifference to act positively on the voluntary utilization of minorities at their highest level of competence without legal, or mass public pressures. And. as shown in the figures below, it is evident that the ownership of mass media is continuing to be concentrated in the hands of a few, rather than being disbursed among the many.

Media Ownership of CATV Systems

Of the 2,490 systems operating as of March 1970, the following is ownership of CATV systems **by other media systems.**[1]

	Media Number of Systems Owned	%
Broadcasters	910	36.5
Phone Companies	146	5.8
Newspaper-Publishing	207	8.2
	1263	50.5

CATV systems at the present time serve over 3,000,000 homes in the United States. If this growth trend continues cable television will be a multi-billion dollar industry by the time the next decade rolls around.

According to Ralph Lee Smith, "CATV is . . . by its nature a monopoly and must secure franchises from local municipal governments."[2] Because of the tremendous sums of money involved, franchise fights can become bloody and drawn out, as witnessed by the indictment of Irving B. Kahn, President of Teleprompter Corporation, and three officials of Johnstown, Pennsylvania, on charges of bribery and conspiracy in connection with the granting of a franchise by the city of Johnstown to Teleprompter.[3] A good way to avoid these possible franchise fights is in the municipal ownership of Cable TV.

Financing

Cable TV represents the most exciting era in technology since the advent of the radio and television. A municipality desirous of owning its own system could do so by selling city "backed" bonds. It is my understanding that "Industrial Development Revenue Bonds" could be looked into. Contrary to the opinions of some people, Cable TV represents no more of a risk, financially, than did radio and television. Why? Because it has been proven through experience that the audio-visual media (such as movies, radio, television) provide people with means of entertainment, education, and stimulation; certainly profitable enterprises. Forward thinking people realize Cable TV's potential riches. Regardless of the costs, a munici-

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1. "Cable," **Radical Software,** Vol 2, 1970, New York City.
2. "The Wired Nation, Ralph Lee Smith, **The Nation,** Vol. 210, No. 19, May, 18, 1970.
3. **The Wall Street Journal;** page 2, January 29, 1971; page 38, April 20, 1971.

Also recommended reading is the "Industry Report on Community Antenna Television" published by the investment research firm of Drexel, Harriman and Ripley, October 1968.

pality undergoes in creating a operative system, the reward is a reality.

Detroit has a potential of roughly 550,000 units, possibly more when all multiple units are included. Using the break-even figures of the private sector, when 50% market penetration has been achieved, the system can look forward to making money. Assuming 250,000 homes subscribed at the rate of $6.00 per month, the gross income amounts to $1,500,000 per month. Multiplied by twelve months, the gross income is $18,000,000. This figure does not represent additional income for other services which will be income producing, such as Pay TV, i.e., additional costs for witnessing a championship football game, championship fights, etc. It is conceivable that for special events the operator could charge an additional $4.00 or more per subscriber to witness these events. The bonds themselves could be of a four, five, six, seven or ten year duration, each carrying with it a stipulated rate of interest, preferably callable bonds.

This field is safe and secure. If it wasn't, why the clamor for Cable TV? Look at the revenue that could be used to advance the City of Detroit. The building of hospitals, aid to higher education, and a multiplicity of additional services could be made available to Detroit citizens from the surplus profits derived from the ownership of Cable TV by the City of Detroit.

I am reminded of an address given by Mr. John W. Macy, Jr., President, Corporation for Public Broadcasting (PBS), in which Mr. Macy said, "To build your own system, you would have to float public bonds, but it would appear to be well worth the investment both in terms of financial return and in terms of public benefit."[4] For your additional information, it might be well to note that under existing FCC (Federal Communications Commission) regulations, 2% of a franchiser's gross profit is all that a municipality is entitled to! Citing the previous figures as an example, the city would net only $360,000. Certainly an insignificant sum as compared to the return if **we owned** the system.

Conclusion

We witness the rapid abandonment of many former residents of the City of Detroit to other locations. Therefore, it should become plain to us, the inheritors of the city, that if the despair, the hopelessness, and the complacency which now dictates the pattern of our thinking is to be overcome, we must begin to re-orient our thinking. It is time to get about the enormous job of rejuvenating what is left of our city. The public ownership of Cable TV provides us with the opportunity to generate our own resources in the rebuilding of Detroit. This is an opportunity which we cannot afford to give away.

/s/ REGINALD D. McGHEE

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[4] "The Public's Dividend," an address by John W. Macy, Jr., at the 47th Annual Congress of Cities, December 10, 1970, in Atlanta, Georgia.

XV. CONSULTANTS TO CABLE TV STUDY COMMITTEE

Mr. Jay Brant, Consultant.

Mr. John F. X. Browne, Jr., Browne Renaud Associates, Inc., Telecommunications Consultants.

Mr. Robert Bruce, Director of Research, Public Broadcasting Service, Washington, D. C.

Mr. George M. Collins, Director, Promotions and Public Relations, Channel 56.

Dr. Alexander Glass, Chairman, Department of Electrical Engineering, Wayne State University.

Dr. Leland L. Johnson, Senior Economist, Rand Corporation: Director, Cable Communications Dayton Miami Valley Report.

Mrs. Peg Kay, Consultant.

Mr. Theodore S. Ledbetter, President, Urban Communications Group, Washington, D. C.; Consultant to the White House Office of Telecommunications Policy.

Dr. Gilbert A. Maddox, Department of Journalism, University of Michigan. Producer, Profiles in Black, WWJ-TV, Detroit.

Miss Carol Oughton, Cable Television Information Service, Urban Institute, Washington, D. C.

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